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EXCURSIONS

IN

WEBSTER'S NEW INTERNATIONAL DICTIONARY

MANY people go to this wonderful storehouse of knowledge only to verify the spelling of some word like EMBARRASSMENT or GAZETTEER and overlook the valuable encyclopedic matter on all kinds of subjects.

The reading of one definition, or article, leads to others through the *cross references* to related subjects—a valuable feature of this great Dictionary.

On the following pages, graphically portrayed, will be found two very interesting Excursions. The first has its beginning with the word *cod;* the second with the word *Hopi.* Both reveal the wealth of encyclopedic information available in Webster's New International Dictionary.

THERE ARE THOUSANDS OF SIMILAR EXCURSIONS

G. & C. MERRIAM CO., *Publishers*
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Printed in U. S. A. Form S 102

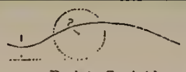
COD: AN EXCURSION IN WEBSTER'S NEW INTERNATIO

This excursion begins with the "sacred" cod of the (Massachusetts) Bay Colony. Let us see w
will carry us! An introduction to the family *Gadidae*; to cousins *tomcod, buffalo cod, rock co*
Its *cycloid* scales and the *barbel* on its chin lead us on to scores of fascinating word stories. N
reef, atoll, lagoon, coral. We have traveled around the globe! The mental exercise will qui

trawl, *n.* **1.** A fishing line, ofte anchored at the ends, having m hooks, used for catching cod, halib **2.** A large bag net fixed to a bean ends, and dragged at the bottom o and in gathering forms of marine
trawl'er (-ẽr), *n.* **1.** One that tra **2.** A vessel that fishes by trawlin

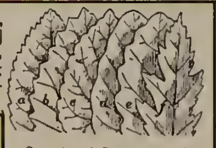
otter trawl. A large trawl in which the net is kept spread by two large boards (**otter boards**, or **trawl boards**) attached one to each side of the mouth of the net. The towlines are attached to the boards so that the pressure of the water causes them to flare apart.

cy'cloid (sī'kloid), *a.* **1.** Circular, or arranged in circles. **2.** *Zoöl.* Pertaining to or designating a type of scale found on many fishes (see CYCLOID SCALE), or a fish or a group of fishes (Cycloidei) with such scales. —**cycloid scale**, *Zoöl.*, a fish scale which is thin and not enameled, and shows concentric lines of growth, without serrations on the margin.

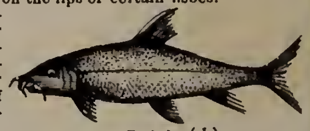

Prolate Cycloid.

Gad'i-dæ (găd'ĭ-dē), *n. pl.* [NL. See large family of soft-finned fishes of thini, including many important food haddock, tomcods, pollacks, etc.; the are chiefly marine, some inhabiting d one genus (*Lota*) is confined to fresh rather elongated body, small cycloid wide gill openings, and usually a ba

ser'rate (sĕr'āt), *a.* [L. *serratus*, fr. *serra* a saw. Cf. SIERRA.] Notched or toothed on the edge, like a saw; specif., *Bot.*, having marginal teeth pointing forward or toward the apex.


a Serrate; *b* Dentate; *c* Crenate; *d* Repand; *e* Sinuate; *f* Incised

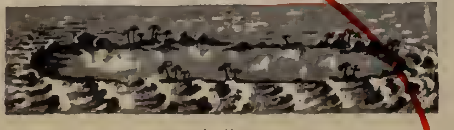
bar'bel (bär'bĕl), *n.* [OF. *barbel*, F. *barbeau*, dim. of L. *barbus* barbel, fr. *barba* beard. See 1st BARB.] **1.** A slender tactile process on the lips of certain fishes. **2.** A large European fresh-water fish (*Barbus vulgaris*), with four barbels on its upper jaw; also, any of various other species of *Barbus*. **3.** *pl.* Barbs or paps under the tongue of horses and cattle. See 1st BARB, 4. **4.** The chin piece of a helmet. *Obs.*


Barbel. ($\frac{1}{10}$)

coral reef. *Phys. Geog.* A reef, often of great extent, made up chiefly of fragments of corals, coral sands, and the solid limestone resulting from their consolidation. It is called a **fringing reef** when it borders the land, and a **barrier reef** when separated from the shore by a broad belt of water. See also ATOLL.

ol'i-va'ceous (ŏl'ĭ-vā'shŭs), *a.* [L. *oliva* olive.] Resembling the olive; of the color of the olive; olive-green; as, *olivaceous* markings on a bird.

a·toll' (*ȧ*-tŏl'; ăt'ŏl; 277), *n.* [Native name in the Indian Ocean.] A coral island or islands consisting of a belt of coral reef surrounding a central lagoon. The old notion


Atoll.

that atolls are built upon the rims of submerged craters has been abandoned as a general explanation. Darwin's theory, which has long been generally accepted, assumes a protracted subsidence of the sea bottom where the reefs are, at a rate not greater than that of the upward building of the coral. It regards the atoll as having commenced as a fringing reef, as having later become a barrier reef, and finally, after the submergence of the island about which it started, an atoll. Recent investigations afford confirmatory evidence of Darwin's theory as applied to some regions, but it is not regarded as of universal application, for Murray and others have shown that barrier reefs and atolls are sometimes formed without subsidence.

shoal, *n.* **1.** A place where a sea, river, etc., is shallow; a shallow. "All the depths and *shoals* of honor." *Shak.* **2.** A sand bank or bar which makes the water shoal. In recent geographical usage the term *shoal* is applied only to elevations or knolls (not rocky) on which there is a depth of water of 6 fathoms (11 meters) or less; *bank* is used for elevations or knolls on which there is a greater depth of water (between 11 and 200 meters); the term *reef* is applied to a rocky elevation or knoll on which there is a depth of water of 6 fathoms or less at low water.

reef (rēf), *n.* [Prob. fr. D. *rif*, or LG. & G. *riff*, prob. of Scand. orig.; cf. Icel. *rif*, Dan. *rev*; perh. akin to Icel. *rifa* rift, rent, fissure, *rífa* to rive, tear; but cf. Icel. *rif* rib. Cf. RIFT, RIVE.] **1.** A chain or range of rocks or ridge of sand lying at or near the surface of the water, esp. one where there is not more than six fathoms at low water. See CORAL REEF; cf. SHOAL. **2.** *Mining.* **a** A vein or lode. *Australia.* **b** In the South African diamond mines, the barren shales, etc., limiting, like an oval funnel, the soft diamantiferous breccia.

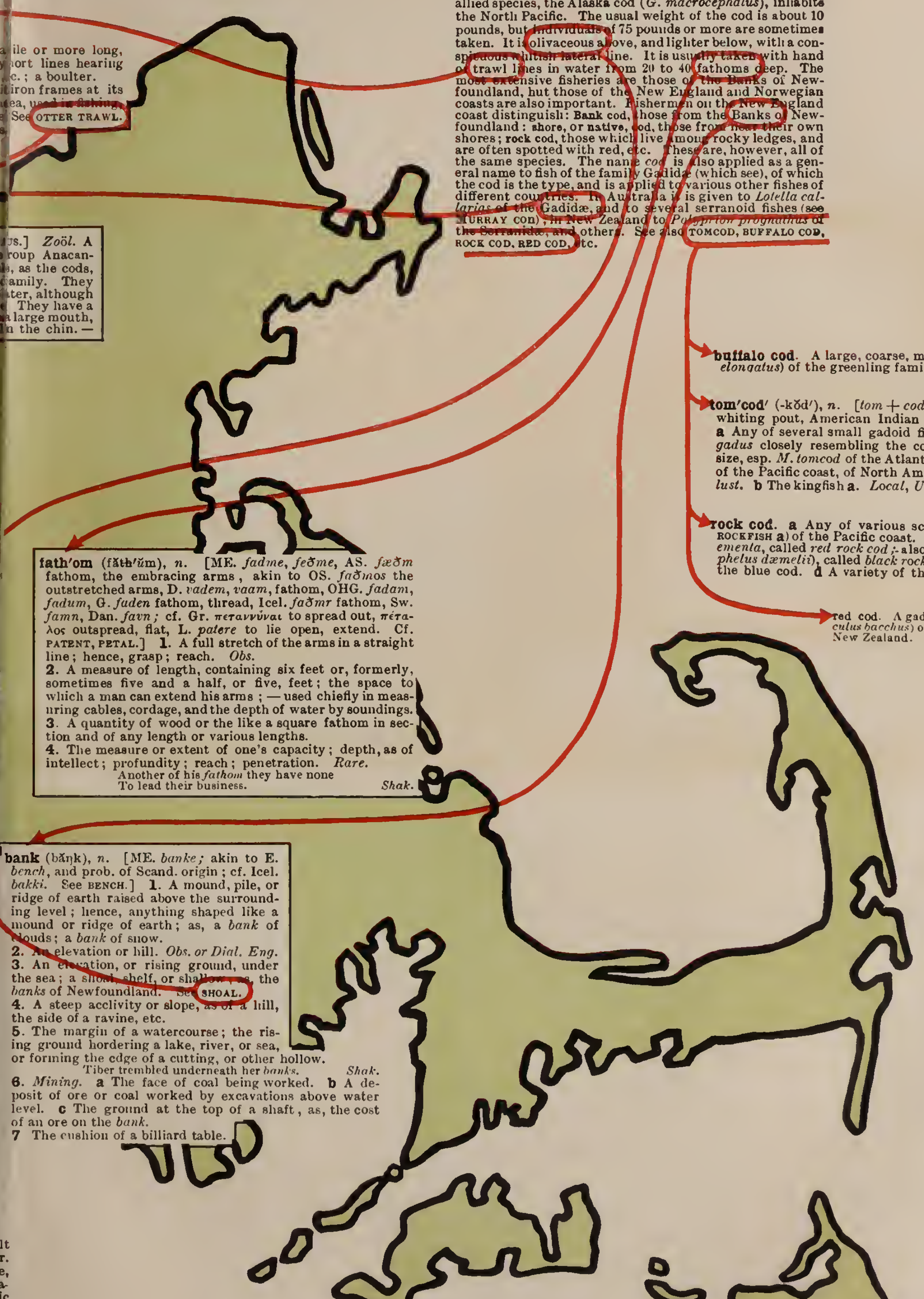
la·goon' (*lȧ*-gōōn'), *n.* [It. or Sp. *laguna*, L. *lacuna* ditch, pool, pond, *lacus* lake. See LAKE; cf. LACUNA.] **1.** A shallow sound, channel, pond, or lake, esp. one near, or communicating with, the sea; as, the *lagoons* of Venice, the *lagoon* of a coral island. See ATOLL. **2.** [Cf. It. *lagone*.] A pool, esp. in a basin formed by a hot spring; as, the *lagoons* of Tuscany. See BORAX.

bo'rax (bō'răks), *n.* [ME. *boras*, fr. F. *borax*, earlie *borras*; cf. LL. *borax*, Sp. *borraj*; all fr. Ar. *būr* Pers. *būrah*.] A crystalline salt, sodium tetra $Na_2B_4O_7$, colorless or white when pure, with a sligl line taste. Ordinary borax crystallizes in large mon prisms containing ten molecules of water, but an dral form containing only five molecules of water tainable. Both of these forms, when heated, lose wa finally fuse to a transparent glass. Borax occurs in Tibet (see TINCAL), California, and Nevada. It is als from soda and the boric acid of hot springs. It is a flux, cleansing agent, and antiseptic, and in so metals, making enamels, fixing colors on porcelain

barrier reef. A coral reef roughly parallel to the shore, but separated from it by a lagoon.

...AL DICTIONARY ➔

...re our interest in this little word
...ed *cod* — some of distant waters.
...ce *fathom, trawl, bank, shoal,*
...n our interest in new paths.



...ile or more long, ...ort lines hearing ...c.; a boulter. ...iron frames at its ...ea, used in fishing. ...See OTTER TRAWL.

...s.] *Zoöl.* A ...roup Anacan... ..., as the cods, ...amily. They ...ter, although ... They have a ... large mouth, ...n the chin. —

cod, *n.* [Of uncertain origin.] A soft-finned fish (*Gadus*

Cod (*Gadus callarias*). (1/16)

callarias) of the colder parts of the North Atlantic, one of the most important food fishes of the world. A very closely allied species, the Alaska cod (*G. macrocephalus*), inhabits the North Pacific. The usual weight of the cod is about 10 pounds, but individuals of 75 pounds or more are sometimes taken. It is olivaceous above, and lighter below, with a conspicuous whitish lateral line. It is usually taken with hand or trawl lines in water from 20 to 40 fathoms deep. The most extensive fisheries are those of the Banks of Newfoundland, but those of the New England and Norwegian coasts are also important. Fishermen on the New England coast distinguish: **Bank cod,** those from the Banks of Newfoundland: **shore, or native, cod,** those from near their own shores; **rock cod,** those which live among rocky ledges, and are often spotted with red, etc. These are, however, all of the same species. The name *cod* is also applied as a general name to fish of the family Gadidæ (which see), of which the cod is the type, and is applied to various other fishes of different countries. In Australia it is given to *Lotella callarias* of the Gadidæ, and to several serranoid fishes (see MURRAY COD); in New Zealand to *Polyprion prognathus* of the Serranidæ, and others. See also TOMCOD, BUFFALO COD, ROCK COD, RED COD, etc.

buffalo cod. A large, coarse, marine food fish (*Ophiodon elongatus*) of the greenling family, of the Pacific coast.

tom'cod' (-kŏd'), *n.* [*tom* + *cod*; but cf. also F. *tacaud* whiting pout, American Indian *tacaud*, lit., plenty fish.] **a** Any of several small gadoid fishes of the genus *Microgadus* closely resembling the common codfish except in size, esp. *M. tomcod* of the Atlantic coast, and *M. proximus* of the Pacific coast, of North America. See FROSTFISH, *Illust.* **b** The kingfish **a.** *Local, U. S.* **c** The bocaccio. *Cal.*

rock cod. **a** Any of various scorpænoid rockfishes (see ROCKFISH **a**) of the Pacific coast. **b** In Australia, *Scorpæna ementa*, called *red rock cod*; also, a large grouper (*Epinephelus dæmelii*), called *black rock cod.* **c** In New Zealand, the blue cod. **d** A variety of the true cod.

red cod. A gadoid fish (*Physiculus bacchus*) of Australia and New Zealand.

fath'om (făth'ŭm), *n.* [ME. *fadme, feðme,* AS. *fæðm* fathom, the embracing arms, akin to OS. *faðmos* the outstretched arms, D. *vadem, vaam,* fathom, OHG. *fadam, fadum,* G. *faden* fathom, thread, Icel. *faðmr* fathom, Sw. *famn,* Dan. *favn*; cf. Gr. πεταννύναι to spread out, πέταλος outspread, flat, L. *patere* to lie open, extend. Cf. PATENT, PETAL.] **1.** A full stretch of the arms in a straight line; hence, grasp; reach. *Obs.*
2. A measure of length, containing six feet or, formerly, sometimes five and a half, or five, feet; the space to which a man can extend his arms; — used chiefly in measuring cables, cordage, and the depth of water by soundings.
3. A quantity of wood or the like a square fathom in section and of any length or various lengths.
4. The measure or extent of one's capacity; depth, as of intellect; profundity; reach; penetration. *Rare.*

Another of his *fathom* they have none
To lead their business. *Shak.*

bank (băŋk), *n.* [ME. *banke;* akin to E. *bench,* and prob. of Scand. origin; cf. Icel. *bakki.* See BENCH.] **1.** A mound, pile, or ridge of earth raised above the surrounding level; hence, anything shaped like a mound or ridge of earth; as, a *bank* of clouds; a *bank* of snow.
2. An elevation or hill. *Obs. or Dial. Eng.*
3. An elevation, or rising ground, under the sea; a shoal, shelf, or shallow; as, the *banks* of Newfoundland. See SHOAL.
4. A steep acclivity or slope, as of a hill, the side of a ravine, etc.
5. The margin of a watercourse; the rising ground hordering a lake, river, or sea, or forming the edge of a cutting, or other hollow.

Tiber trembled underneath her *banks.* *Shak.*

6. *Mining.* **a** The face of coal being worked. **b** A deposit of ore or coal worked by excavations above water level. **c** The ground at the top of a shaft, as, the cost of an ore on the *bank.*
7 The cushion of a billiard table.

...elt ...fr. ...te, ...ka- ...nic ...he- ...oh- ...nd ... in ...de ... as ...ing

HOPI: Another Excursion in

WEBSTER'S NEW INTERNATIONAL DICTIONARY

Residents in our Southwestern States are familiar to some extent with the term *Hopi*. Many travelers to the Grand Cañon have visited the model *Hopi* house, so called, and wandered through its smoky rooms observing the natives weaving baskets. Has your curiosity and interest been aroused to the point of knowing more of the *Hopi?* Let us see what WEBSTER'S NEW INTERNATIONAL DICTIONARY has to say.

Turn to the red-line chart and see where our interest may carry us. Here is a clear, compact little story of *Hopi* with a cross reference to *pueblo,* but first let us freshen our memory on the words *mesa* and *snake dance*. Next we meet *adobe* and then find ourselves turning to *playa, corral,* and *acequia,* and further on to *laager.* Looking up the word *kiva* we are directed to *estufa.* The line from *Tanoan* to *Isleta,* and *Albuquerque* holds our attention until we are led on from *delta* to a new class of words such as *alluvial, sediment, three-phase system, star,* and the chain seems endless! In a brief space of time, fifteen terms, to an extent all related in some way, are clearly defined, pronounced, and have prompted a score of new thoughts. We have traveled from Arizona to the Philippine Islands, to Mexico, to South Africa, and to the Nile and Mississippi rivers.

Ho'pi (hō'pē), *n.* [Contraction of native *Hopitu* peaceful ones.] One of a Pueblo tribe of Shoshonean Indians occupying seven villages built upon three mesas in north central Arizona. They are industrious farmers, and are noted for their expert weaving of basketry and blankets, as well as for their religious festivals of the "new fire," the "winter solstice," and the celebrated "snake dance" (which see). Called also *Moki.* See PUEBLO.

me'sa (mā'sȧ), *n.* [Sp.] A table-land or plateau with an abrupt or steeply sloping side or sides, often bordering a valley; a high terrace. They are common in the southwestern United States.

snake dance. A religious dance in which the handling of snakes is a part of the ceremonial; esp., the dance given by the Hopi Indians every second year as the culmination of a nine days' ritual, to petition the nature deities for rain, the snakes probably representing underworld powers.

‖ **pla'ya** (plä'yä), *n.* [Sp.] A beach; strand; shore; in the plains and deserts of Texas, New Mexico, and Arizona, a broad, level spot, on which water accumulates after rains, and which subsequently becomes dry by evaporation.

laa'ger (lä'gẽr; lō'gẽr), *n.* [D. (in South Africa), also *leger.* Cf. LEAGUER a camp, LAIR.] A camp, esp. one with a defensive barrier of travelers' wagons. *South Africa.*
laa'ger, *v. t. & i.*; LAA'GERED (-gẽrd); LAA'GER-ING. To form into, or camp in, a laager. *South Africa.*

a-do'be (ȧ-dō'bē), *n.* [Sp.] **1.** An unburnt brick dried in the sun; — a name common where the Spanish have settled, as in Texas and New Mexico.
2. Earth from which unburnt bricks are made, esp. in the arid regions of the western United States; hence, any alluvial or playa clay in desert or arid regions.
3. A house or structure made of such bricks or clay.
Shortly we saw a little broken *adobe,* a tumbled brush corral, the plastered gate of an acequia, and the blue water of the tank. *F. Remington.*
4. The Mexican silver dollar. *Colloq., Southwestern U. S.*
a-do'be, *a.* Made of adobe; — hence applied colloquially by Americans to any of various Mexican things; as, an *adobe* dollar. *Colloq., Southwestern U. S.*

cor-ral' (kŏ-răl'; *Sp.* kō-räl'), *n.* [Sp., a yard, a yard for cattle, fr. *corro* a circle or ring, fr. L. *currere* to run. Cf. KRAAL.] A pen or inclosure for confining or capturing animals; also, an inclosure, made with wagons, in an encampment, as a place of defense and security (cf. LAAGER).

a-ce'qui-a (ä-sā'kē-ȧ; *Sp.* ä-thā'kē-ä; 138), *n.* [Sp.] A canal or trench for irrigating land. *Sp. Amer.*
‖ **acequia madre** (mä'drā), the main ditch or acequia.

pueb'lo (pwĕb'lō), *n.; pl.* -LOS (-lōz). [Sp., a village, L. *populus* people. See PEOPLE.] **1.** One of the Indian villages of Arizona, New Mexico, and adjacent parts of Mexico and Texas, built of stone or adobe in the form of communal houses, sometimes of several stories or terraces. Formerly, as still in the case of the Hopi, they were placed upon the mesas, as an additional protection from assaults. The houses are flat-roofed, and access to the interior is often had only by a trapdoor in the roof and a ladder. The subterranean kiva is an essential feature.
2. [*cap.*] An Indian of one of the pueblos. The Pueblo Indians are shorter and darker than the plains tribes: they are gifted with strength and endurance. They are industrious agriculturists, skilled and artistic in weaving, pottery, and basketry. They are noted for their elaborate ritualistic dances and festivals. Several linguistic stocks are represented, — the Shoshonean, Tanoan, Keresan, and Zuñian. The cliff dwellings of Colorado and Utah mark their earlier northern limits.
3. Any Indian village of the southwestern United States.
4. A territory or district, generally comprising several towns and hamlets and nearly equivalent to the American township or county. *Phil. I.*

ki'va (kē'vȧ), *n.* [Hopi name, sacred chamber.] A large chamber built under, or in, the houses of a Pueblo village, used as an assembly room in religious rites or as a men's dormitory. It is commonly lighted and entered from an opening in the roof. Cf. ESTUFA.

Kiva.

ki'wi (kē'wē), *n.* [Maori.] Any bird of the genus *Apteryx* (which see).

es-tu'fa (ĕs-tōō'fä), *n.* [Sp., a stove, a warm room.] An assembly room in a Pueblo Indian dwelling.

Ta'no-an (tä'nō-ăn), *a.* Designating, or pertaining to, a linguistic stock of North American Indians occupying pueblos in the Rio Grande and tributary valleys, their largest pueblo being Isleta, New Mexico. See PUEBLO, 2.

Is-le'ta In'di-an [illegible] the old village was on a delta or island between the bed of a mountain torrent and the Rio Grande. *Ethnology.*] An Indian of the pueblo of Isleta, near Albuquerque, New Mexico. The Isleta Indians are of ancient stock and are peaceable, industrious, and efficient agriculturists. Isleta near El Paso, Texas, was founded by refugees from the New Mexican branch after the Pueblo revolt of 1680.

del'ta (dĕl'tȧ), *n.* [Gr. δέλτα, name of the fourth letter, Δ, δ, of the Greek alphabet, from the Phœnician name of the corresponding letter.] **1.** The fourth letter of the Greek alphabet (Δ, δ), corresponding to D. See D.
2. Hence, something having the shape of the capital Δ. Specif.: **a** The alluvial tract of land at the mouth of the Nile, inclosed by its spreading branches. **b** In general, an alluvial deposit at the mouth of a river, frequently forming a tract of land of considerable area. Its terminus often has the shape of the letter delta (Δ), owing to the division of the river into separate branches. The shape of the delta as a whole is determined largely by the configuration of the coast line where it is formed. In order to form a delta, a river must not only carry sediment, but must discharge it where it will not be swept away as fast as it accumulates. Deltas are formed on open coasts, more commonly in bays and lakes, and occasionally where one river joins another. The delta of the Mississippi has an estimated area of more than 12,000 square miles and is advancing into the Gulf at the annual rate of about 260 feet. **c** An alluvial fan (see under ALLUVIAL); — called specif. *fan delta* or *cone delta.* **d** *Phon.* The pharynx, the mouth passage, and the nasal passages, taken collectively. *Hempl.*
3. *Elec.* The closed figure produced by connecting three coils or circuits successively, end for end, esp. in a three-phase system; — often used attributively, as *delta* winding, *delta* connection (which see), etc. Cf. STAR, *n.*

? ? ? ?

Albuquerque (ăl'bō-kûr'kē) city, Bernalillo co. New Mex. pop 15, Univ. of New Mex.

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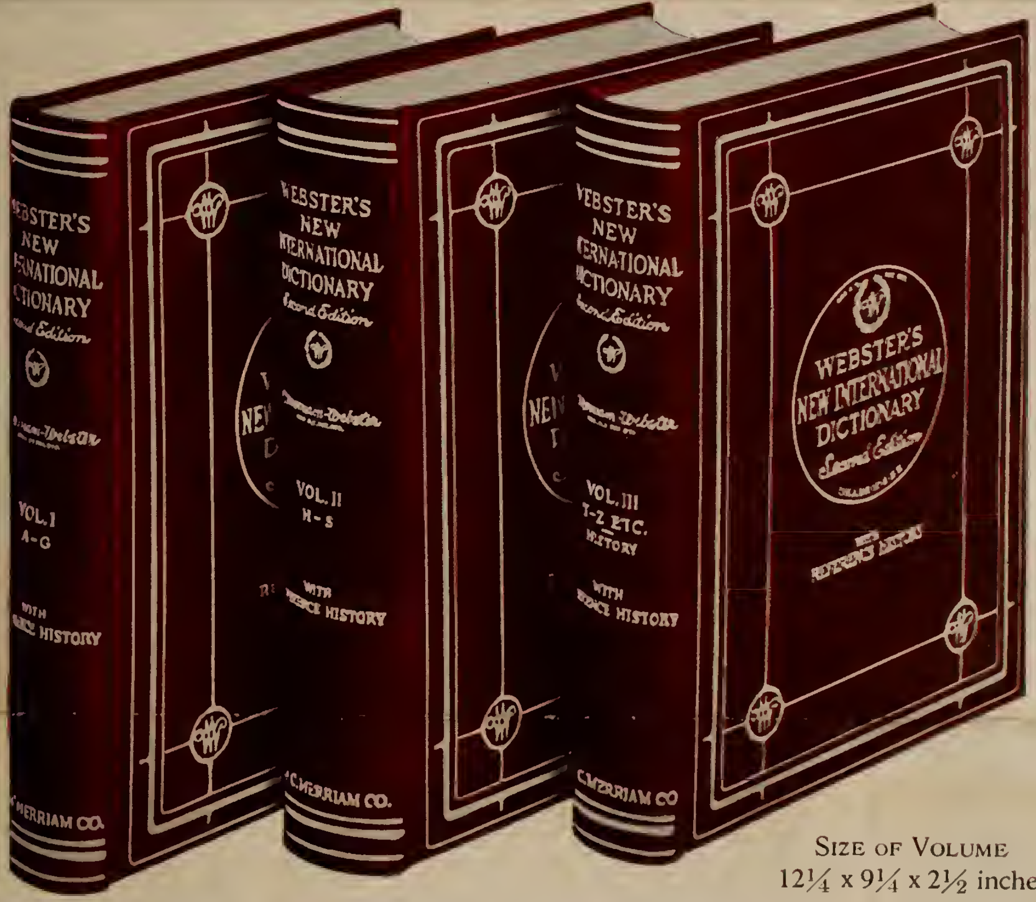

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G. & C. Merriam Co., ***Publishers,*** **Springfield, Mass., U. S. A.**

OFFICIAL FLAGS OF THE UNITED STATES

Plate I

[1]The eagle design is taken from the President's seal, not from the great seal of the United States, and is here correctly depicted. [2]A junior admiral, vice admiral, or rear admiral, in the presence of a senior of the same grade, flies a red flag bearing white stars [3]Without the badge, this becomes the flag of the Customs Service.

HISTORIC FLAGS OF THE UNITED STATES

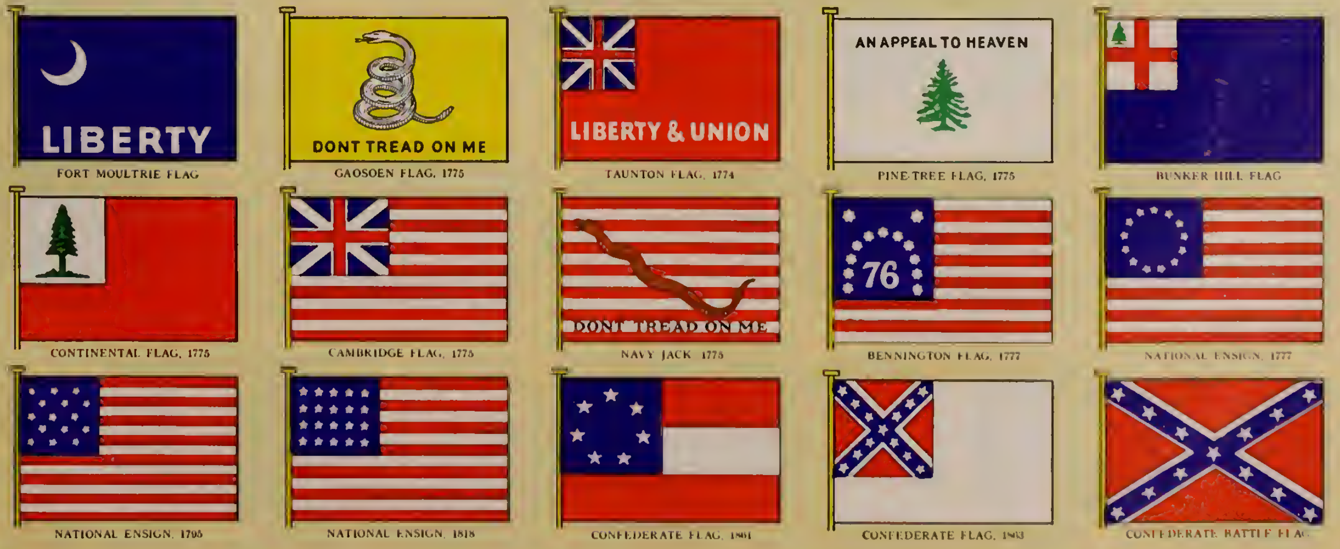

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Plate II GREAT SEALS OF THE UNITED STATES AND TERRITORIES

THE GREAT SEAL OF THE UNITED STATES

The design of the Great Seal of the United States was adopted by the Continental Congress June 20, 1782. The designs of the original die (cut in 1782) and the second die (cut in 1841) differ somewhat, in detail and arrangement, from the design of the later dies (cut in 1884 and 1902 respectively) shown above. The original design included both obverse and reverse. The reverse has never been cut.

*The Great Seals of Georgia, Pennsylvania, Virginia, and West Virginia have a reverse, as well as the obverse shown in this plate.

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STATE FLAGS OF THE UNITED STATES

[1] The Bear Flag, first flown in June 1846 [2] The flag of the proprietary government of Maryland. [3] The lone-star flag of the Texas Republic [4] The flags of Massachusetts, Oregon, and South Dakota have separately designed reverses.
*Flags designated by an asterisk customarily have a gold fringe on the three outer edges In other cases a fringe is optional

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ARMS OF VARIOUS NATIONS

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[1]The National Flag for use ashore. Flown on the jack staff of ships of war and at the main by the Admiral of the Fleet. With certain insignia in the center, used by diplomatic representatives ashore and afloat, and afloat by military authorities. With colonial badge in center, used afloat by governors, high commissioners, and officers administering the government. [2]St. George's cross. The Vice Admiral's flag has a red ball in the upper canton next the staff. The Rear Admiral's flag has a red ball in each of the two cantons next the staff. The Commodore's broad pennant is a swallow-tailed flag bearing the St. George's cross. [3]Flown by ships of war and by vessels of the Royal Yacht Squadron. [4]Flown by vessels commanded by officers of the Royal Navy on the retired list or by officers of the Royal Naval Reserve. With colonial badge in fly, flown by vessels in the employment of a British Colony. With other insignia in fly, flown by vessels in other public service. With royal arms in fly, flown afloat by consular officers. With imperial crown in fly, flown by British customhouse. [5]Flown by British merchant ships, and vessels not otherwise provided for. [6]The merchant flag. In the government flag the field is blue. The badges of the states are shown separately on this page. [7]The merchant flag. In the government flag the field is blue. The badge is shown above. The badges of the provinces are shown in the last row on this page. [8]The merchant flag. In the government flag the field is blue and the stars red bordered with white. [9]The national flag. At the center are placed the Union Jack and the republican flags of the Orange Free State and the Transvaal. The government flag and the merchant flag are, respectively, the blue and the red ensign with the badge (which see) in the fly. [10]The arms are placed in the fly. The circle does not appear.

NOTE.—The circles on the Union Flag and ensigns merely mark the position to be taken by the badges, and do not appear on the flags proper

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FLAGS OF VARIOUS NATIONS

[1] Without the device this becomes the merchant flag [2] With coat of arms (see Plate IV) at the center, this becomes the ensign [3] By decree of March 12, 1933, to be flown together The ensign is the black, white, red flag, with the iron cross at center [4] Also flown without the coat of arms. [5] The ensign has a crown above the escutcheon. [6] In the ensign the device appears in an oval at the center of the flag. [7] Also flown, as a national flag, without the device [8] The ensign bears the coat of arms, near the staff.

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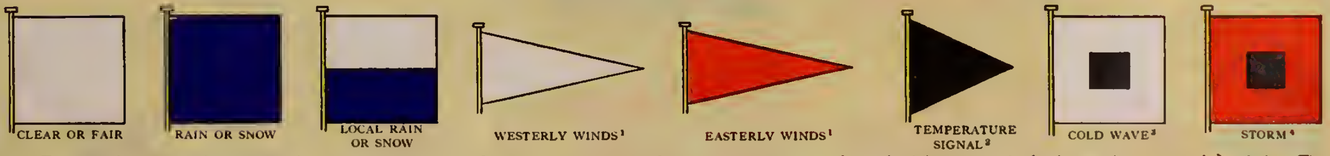
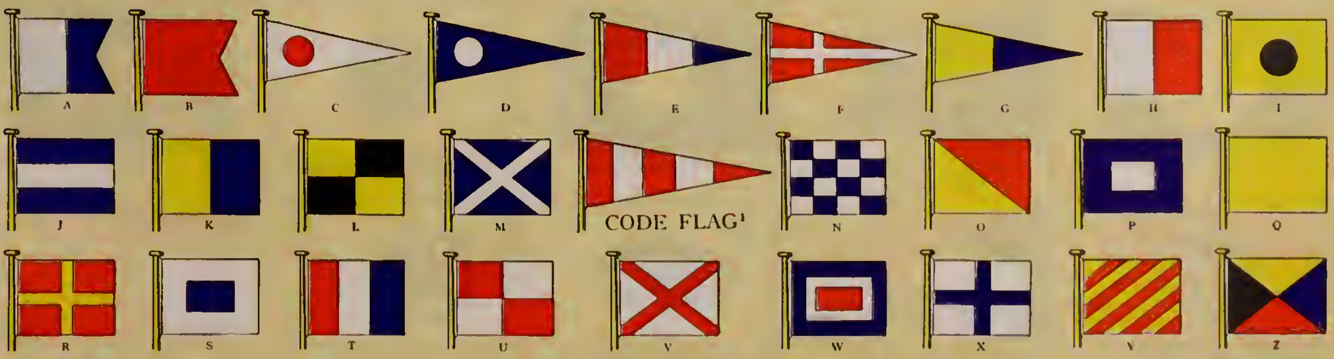
NOTE.—The numerals above refer to the footnotes on the preceding page.

UNITED STATES WIND AND WEATHER FLAGS



[1] The easterly or westerly pennant *above* cautionary or storm flag indicates northerly (and easterly or westerly) winds, *below* southerly (and easterly or westerly) winds. The easterly pennant when displayed alone is the Information Signal and Small Craft Warning. At night, arrangements of white and red lanterns are used instead of flags. [2] The temperature signal *above* a weather flag indicates warmer, *below* indicates colder weather. [3] Cold wave flag indicates 45° or lower. [4] When two are shown, Hurricane.

FLAGS OF THE INTERNATIONAL CODE OF SIGNALS



[1] When used as the "code flag" to be hoisted under the ensign. When used as the "answering pennant" to be hoisted at the masthead or where it can best be seen.

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HOUSE FLAGS OF STEAMSHIP LINES

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N Webster

WEBSTER'S
NEW INTERNATIONAL DICTIONARY
OF THE
ENGLISH LANGUAGE

Second Edition

UNABRIDGED

WITH REFERENCE HISTORY

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1938

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A DICTIONARY OF THE ENGLISH LANGUAGE 1–2987

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PUBLISHERS' STATEMENT

With the publication of Webster's New International Dictionary, Second Edition, at a cost of one and one-third million dollars, G. & C. Merriam Company continue their policy of meeting the requirements of the English-speaking world for a one-volume general dictionary that adequately interprets both past and contemporary civilization.

In all, to date there have been ten Webster and Merriam-Webster Dictionaries: *An American Dictionary of the English Language*, edited by Noah Webster, in 1828; The *Revised Edition*, in 1840; a *New and Revised Edition*, edited by Chauncey A. Goodrich, in 1847; a *Revised and Enlarged Edition* with *Pictorial Illustrations* and a *Table of Synonyms*, edited by Chauncey A. Goodrich, in 1859; the *Unabridged*, with vocabulary three times the size of the 1828 Dictionary, and with etymologies revised, with Noah Porter as editor in chief, in 1864; the *Unabridged*, with a *Pronouncing Biographical Dictionary*, in 1879, and with a *Pronouncing Gazetteer* in 1884; the *International*, with Noah Porter as editor in chief and Loomis J. Campbell as general editor, in 1890; the *International*, with *Supplement*, in 1900; and the *New International*, having more than 400,000 entries, with W. T. Harris as editor in chief and F. Sturges Allen as general editor, in 1909.

The increase in size and complexity of the task of editing has resulted, in successive editions, in a corresponding increase in the editorial organization. The printer's copy for the edition of 1828 was written entirely in the hand of Noah Webster; it was truly a "one-man" dictionary. The printer's copy (still preserved) for the 1864 *Unabridged* shows many hands; the editorial staff, with contributing editors and special editors, numbered more than thirty. The editing of the *New International* of 1909 was done by nearly thirty office editors, including eleven special editors, and more than thirty special editors outside the office staff. More than *two hundred and fifty* editors and editorial workers have been employed in the preparation of this Second Edition of the New International. It is hardly necessary to observe that, with so many laborers, the production of a book of uniform merit and of high technical excellence in every detail called for extraordinary preparation and organization. In earlier editions, it was still possible for one Editor in Chief or one General Editor, by exerting superhuman efforts, to determine and apply policies, to read and criticize every line, and to harmonize all the diverse and disparate subject matter.

When the publishers and the permanent editorial staff confronted the almost staggering problem of producing a new Dictionary that would treat adequately all aspects of historical and contemporary science, technology, language, literature, and society, it became clear that the day of the "one-man" dictionary had passed, and that new methods must be devised.

Of primary importance to the successful determination and guidance of editorial policy was the formation of an Editorial Board, consisting of the Editor in Chief, the President of G. & C. Merriam Company, the General Editor, and the Managing Editor.

William Allan Neilson, President of Smith College, brought to the position of Editor in Chief wide experience in the schools, colleges, and universities of Scotland, Canada, and the United States; he had edited the work of Shakespeare and other dramatists and writers; he had been associate editor (with Charles W. Eliot) of the *Harvard Classics*, the famous "Five-Foot Shelf of Books," in the selection and editing of whose contents he had shown the catholicity of his interests and the encyclopedic character of his mind. Both editors and publishers have learned to value and trust his fine judgment of men and measures.

A. G. Baker, President of G. & C. Merriam Company, contributed a many-sided judgment gained through his invaluable editorial experiences on the *International* and the *New International Dictionaries*. The successful correlation between editorial and business policies, upon which has depended the accomplishing of this huge task, has been largely a result of his wisdom.

Thomas A. Knott, the General Editor, former Professor of English at the University of Iowa, is distinguished as a scholar in language and literature, as a successful teacher, and as an experienced executive and administrator in the university world, as well as in the Military Intelligence Division of the United States Army.

Paul W. Carhart, the Managing Editor, brought large lexicographical experience, having been on the Merriam staff since his work on the Supplement of 1900. Upon him early fell the responsible work of conducting the business arrangements with the special editors and of carrying on with them the necessarily enormous correspondence. Mr. Carhart has also been the Pronunciation Editor of the new edition.

The policies determined by the Board have, under the supervision of the General Editor, been carried out by a three-fold corps of editors: one group of Special Editors, working outside the office, to edit the scientific and technical materials; a second group, members of the office staff, to review and bring into uniformity the work of the Special Editors; and a third, also members of the office staff, to edit the literary and nontechnical materials. The analysis of material, the devising of practical methods of work, the teaching and training of the various Special and Office Editors, and the correlation of their work have largely been the responsibility of the General Editor.

Without the co-operation of the scholarly, scientific, and technical world, of the Editorial Board, of the Permanent Staff, of the Special Editors, and of The Riverside Press, the publishers could not have brought the work on this great Dictionary to its successful culmination. It stands as the organized, co-ordinated accomplishment of a large corps, so trained that the skill of the leader is the skill of the corps.

G. & C. MERRIAM COMPANY
Publishers

July 2, 1934.

PREFACE

The first edition of Noah Webster's American Dictionary of the English Language was published in New York in 1828. It was the work of a patriotic scholar who had given much thought to the needs of his country, and who saw the importance, even while the foundations of the republic were being laid, of providing against the danger of illiteracy in a generation much occupied with political and economic reconstruction. As early as 1783 he had published his famous American Spelling Book, and the extraordinary vogue of this primer, which sold by the million down through the third quarter of the nineteenth century, showed how wisely he had judged the necessity for such a means of self-education. Incidentally, its profits enabled him to devote some twenty years to the preparation of a dictionary which should serve as a key to all the stores of knowledge in the English tongue. Webster's great predecessor was, of course, Doctor Johnson, but two generations had elapsed since the publication of his dictionary, and in the meantime a new English-speaking nation had been born. Already an American contribution was being made to the English vocabulary and idiom, and it was necessary for him to conceive his task in terms of the new situation and its needs.

The book appeared in two quarto volumes, twenty-five hundred copies being printed for the United States and three thousand for Great Britain. Its vocabulary contained 70,000 words, an increase of 12,000 over Todd's Johnson, and it received recognition at once for the fullness, clearness, and accuracy of its definitions — a distinction which all subsequent editors have jealously striven to maintain. Webster issued an enlarged edition in 1840. On his death in 1843 the unsold copies and publishing rights were acquired by G. & C. Merriam, who in 1847 brought out an edition in one volume under the editorship of Webster's son-in-law, Professor Chauncey A. Goodrich, of Yale College. In 1859 this was reissued with the addition of synonyms and the important innovation of pictorial illustrations.

The edition popularly known as the Unabridged was published in 1864, the result of a general revision. The Editor in Chief was Dr. Noah Porter, later President of Yale College, and the etymologies were modernized by Dr. C. A. F. Mahn, of Berlin. The vocabulary was increased to 114,000 words, and distinction and authority were gained by the collaboration of such scholars as William D. Whitney and Daniel C. Gilman. A supplement to the Unabridged appeared in 1879.

A still more thoroughgoing revision was achieved in Webster's International Dictionary of 1890. The new title had reference both to the extension of the vogue and authority of the work throughout the English-speaking world, and to the inclusion of foreign scholars among its contributors. President Porter was again Editor in Chief. The vocabulary had now reached 175,000 words, a number which was increased by 25,000 in the International with Supplement of 1900.

The New International, which appeared in 1909, represented the most radical of all the revisions thus far. The materials of the supplement and many of the appendices were embodied in the main vocabulary, all the matter was thoroughly sifted, and every department of the book was revised and improved. The vocabulary now contained 400,000 words. The Editor in Chief was Dr. W. T. Harris, United States Commissioner of Education, and the General Editor, Mr. F. Sturges Allen, both of whom had worked on the Supplement of 1900; the etymologies were cared for by Professor E. S. Sheldon, of Harvard, assisted by Professor Leo Wiener, and the pronunciation by Mr. Paul W. Carhart. The staff of specialists was greatly enlarged, and the authority of the definitions correspondingly heightened.

The present work, WEBSTER'S NEW INTERNATIONAL DICTIONARY, SECOND EDITION, is the result of a complete and detailed scrutiny of every feature: choice of vocabulary, etymologies, pronunciations, definitions, typography, pictorial illustrations, and arrangement. Apart from the normal advance of knowledge which has had to be assimilated in each successive edition, the present editors have had to reckon with the increased pace in scientific progress in the last generation, the extraordinary number and importance of new inventions, the revolutionary changes in art, and, above all, the far-reaching effects of the World War, not only on military science, politics, economics, and geography, but on practically every field of thought and action. Space has had to be found for thousands of new terms and new uses of old terms, and this demand has made necessary a fresh judgment on the claims of many parts of the old vocabulary. Once more the editors have had to make a new book. Traditional features that have stood the test have been retained, so that the book is still a Webster, but more important than the retaining of time-honored methods or conventions has been the task of making the dictionary serve as an interpreter of the culture and civilization of today, as Noah Webster made the first edition serve for the America of 1828.

Within recent years there has been a new emphasis on adult education. In spite of the multiplication of schools and the great increase in numbers of students in colleges and universities, it is more and more recognized that education does not and cannot end with attendance at institutions of learning. It is a lifelong process, in which the school or college is chiefly important in supplying tools and teaching how to use them. For the conception of the educated man as a finished product is being substituted that of the intellectually curious person, aware of the vastness of human ignorance but challenged by the light that is continually being thrown, through scientific research and other activities of the human mind, upon all aspects of the universe. To avail oneself of these results for the understanding of our environment and for the practical adjustments to it that modern living demands, the intelligent person of today has to read constantly. Our books, periodicals, and newspapers teem with new terms coined or revived to express new conceptions, and the dictionary more than ever is the indispensable instrument of understanding and progress.

It is in the light of these necessities that the present revision has been planned and carried out. Such a revision is far from being a mere supplementing by addition. The constituting of the vocabulary of the present volume has been a highly selective process in which the problem of discarding was second only to that of adding. Space has had to be found for so much that is new that the pages have had to be disencumbered of much that has become comparatively useless or obsolete. Yet, since the older literature will still be read, mere obsoleteness is no criterion. Many discontinued scientific terms may fairly be regarded as dead and may safely be omitted, but obsolete words in literature call for explanation as much as ever. In the decisions which have had to be made on such questions, no simple rule of thumb like the fixing of a date after which a word ceases to appear will suffice; much depends on who among older writers has used it. In general, words which had become obsolete before 1500 have been omitted, but the whole vocabulary of Chaucer has been retained. Occasional disappointment is inevitable,

but when it came to a choice between a word used last by an obscure writer of the sixteenth century and an essential term in aviation, it seemed clear that the greater usefulness was to be obtained by explaining the latter. It is obvious that such judgments cannot be absolute; the editors have sought by consultation and accumulation of instances to reduce to a minimum the personal and capricious.

In the actual definition of words and senses, as well as in the selection of the vocabulary, the editors have had available as a most important source of information a storehouse of citations specially gathered for this revision. These citations number 1,665,000. They have been collected from a vast number of sources, contemporary authors particularly having been widely read for new words and for new meanings of older words. Not all of these citations, of course, appear in the Dictionary, but, wherever it has been possible or desirable, the definitions have been clarified by the use of quotations or of illustrative phrases specially chosen to show precise and idiomatic usage.

In the more technical fields, resort has been had to specialists, no fewer than two hundred and seven scholars, scientists, and experts having been charged with collecting, choosing, and defining terms in their respective fields.

In the field of etymology, the revision of the work of Professors Sheldon and Wiener has been thoroughly carried out by Professor Harold H. Bender, of Princeton University. Special attention has been given to linguistic terms, and the results of modern scholarship in philology, grammar, and phonetics. Mr. Paul W. Carhart has again been in charge of the pronunciation, and has had the collaboration of Professor John S. Kenyon, of Hiram College. The admirable work on synonyms in the NEW INTERNATIONAL *by Professor John Livingston Lowes, advised by Professor G. L. Kittredge, both of Harvard University, has been retained and the number of words for which synonyms are given has been increased and antonyms have been added.*

Professor Kittredge has again revised the section on the "History of the English Language." The Gazetteer and the Biographical Dictionary have been thoroughly revised and brought up to date. The sections devoted to an explanation of "Signs and Symbols" have been revised and expanded. And for convenience of consultation, a full Table of Abbreviations has been incorporated in the end matter of the Dictionary.

The vocabulary here presented as a result of these processes of collection and selection amounts to over 550,000 entries, the largest number ever included in a dictionary of any language. To this total should be added 36,000 names in the Gazetteer, 13,000 in the Biographical Dictionary, and 5,000 entries in the Table of Abbreviations, making a total of over 600,000. More than 12,000 terms are graphically illustrated in the Pictorial Illustrations.

Immediately upon the beginning of active work on the new edition, it became clear that the best method for deciding the hundreds of vital questions of policy which confronted the editors was to refer them to an Editorial Board, which should have full power of decision. All important problems of policy and administration have been in the jurisdiction of this Board, from the choice and appointment of the Special Editors to the methods of collecting citations, and the typographical arrangement of the Dictionary. The Memoranda considered by the Editorial Board and the Minutes of its discussions and decisions occupy approximately two thousand typewritten pages.

The value of the judgment of the Editorial Board has been greatly enhanced by the character of its membership. Mr. A. G. Baker, President of G. & C. Merriam Company and in general charge of editorial work, had been employed as an Assistant Editor on the International Dictionary *in 1890, and as Managing Editor of the* New International Dictionary *in 1909. His peculiarly intimate knowledge of both the business and the professional sides of dictionary editing has been of the utmost value.*

Dr. Thomas A. Knott, formerly a teacher of English with experience in every stage of American education from the public school to the university, a profound student of language and literature, has been the General Editor of the new edition, and has had the supervision of the work of office editors and special editors.

Mr. Paul W. Carhart, Pronunciation Editor of the new edition, as he had been of the Supplement in 1900 and of the New International Dictionary *in 1909, former student of Sweet and Vietor, and editor of a number of Webster abridgments, has acted also as Managing Editor.*

Dr. John P. Bethel, Assistant Editor of the New Edition, was a member of the Board in the later stages of its work.

Mr. Robert C. Munroe, of the Executive Committee of G. & C. Merriam Company, served as a member of the Board in the absence of Mr. Baker, and has been freely consulted at other times.

To these gentlemen, with whom he has had the privilege of sitting on the Editorial Board for many years, the Editor in Chief wishes to express his grateful admiration not only for the wide and deep scholarship to which the following pages bear testimony, but for the infinite painstaking, the open-mindedness, and the power of mutual forbearance which were essential to the successful accomplishment of a task demanding character no less than judgment and learning.

WILLIAM A. NEILSON
Editor in Chief

NORTHAMPTON, MASS.
July 2, 1934

INTRODUCTION

Webster's New International Dictionary, Second Edition, now presented to the English-speaking world after more than ten years of active preparation, is, like each of its unabridged predecessors in the Merriam-Webster series, an entirely new book. Not only has every entry and every definition in the preceding edition been thoroughly scrutinized in the light of all available new information, a process which has resulted in the rewriting or revising of perhaps two thirds of its contents, but the total number of vocabulary entries has been increased to six hundred thousand, thus providing an unsurpassed richness of resources for the general reader, the student, the businessman, and the professional man. Similarly, every pronunciation, every etymology, every pictorial illustration in the preceding edition has been re-examined and, if no longer adequate, has been replaced; while the pronunciation and etymology of each of the new words have been determined, and every new word requiring it has been provided with a pictorial illustration.

In continuing the Merriam-Webster editorial policy of making modern culture and science accessible to the general reader, the editors of the new edition have held steadfastly to the three cardinal virtues of dictionary making: *accuracy*, *clearness*, and *comprehensiveness*.

It is obvious that a Dictionary so universally appealed to as a final authority must make *accuracy* its first objective. Every definition in this book has been written not only with the skill in analysis developed by long experience, but with the utilization of every resource that will secure correctness.

In the editorial striving for *clearness*, the general reader has been kept first in mind. Medical terms have been defined so that the definitions can be understood by a lawyer or a merchant; legal terms, so that they can be understood by any layman who meets them in his general reading. At the same time, it must be realized that certain sciences have levels in which are used terms that cannot be adequately explained except to persons who have passed through preliminary stages of initiation. For example, some of the terms used in trigonometry or analytic geometry cannot be made intelligible except to those who have studied algebra. Such kinds of rock as granite, slate, and sandstone can be defined simply and at the same time fully and exactly; but many kinds of rarer rocks, recognizable only by the advanced scientist by means of minor characteristics, must necessarily be defined in more technical language. On the other hand, technical terms of a general character, such as names of parts of a flower or of certain shapes of a leaf, have been so treated as to be understood by the nonscientific reader. And many vernacular terms for well-known things that have a scientific aspect, such as the names of common animals or vegetables, or the names of common colors, have been given first a nontechnical and then a technical definition, so that the needs of both general and scientific readers are met.

The *comprehensiveness* of the new edition has two aspects — the size of the vocabulary and the fullness of treatment. No other dictionary has approached the new Merriam-Webster in the number of entries; and yet the entries comprise only a selection from a much larger collection of terms. Space has not been wasted on words and phrases which are too technical, too rare, too ephemeral, or too local, or which are self-explanatory. On the other hand, encyclopedic treatment has been given to hundreds of important terms that lend themselves advantageously to this method of treatment (see, in the *Dictionary*, animal, electricity, element, elephant, Anglo-Saxon, music). Systematic definition, in which a number of related terms are defined more adequately by being all treated in a single paragraph, has been followed in hundreds of cases (see Bible, lathe, Latin, psychology). Systematic treatment has also been utilized in Tables, in Pictorial Illustrations, and in Plates (for Tables, see battle, fern, oil, Indo-European languages; for Pictorial Illustrations, see airplane, airship, bridge, leaf, ship, sail; for Plates, see automobile, coin, gem, wild flowers).

The Collection of Citations

In conformity with the traditional principle of the Merriam-Webster Dictionaries that definitions, to be adequate, must be written only after an analysis of citations, the definitions in this new edition are based on citations, chiefly those collected by the Editorial Department. Immediately upon the publication of the first edition of the *New International Dictionary*, the collection of additional material began. Since 1924 the editors have systematically reviewed chosen cross sections of contemporary printed materials, including many thousands of books, pamphlets, magazines, newspapers, catalogues, and learned, technical, and scientific periodicals. From these sources have been collected about 1,665,000 citations. Besides these, the editors have also examined about 2,000,000 citations in other dictionaries, and have utilized, as required, selections from the millions of citations contained in concordances to the English Bible, and to the works of Shakespeare, Milton, Browning, Tennyson, Chaucer, Spenser, Pope, Gray, Shelley, and other English writers. It cannot be emphasized too strongly that the reason for the fundamental and thorough soundness of the Merriam-Webster Dictionary is that it is a "Citation Dictionary."

In the technical and scientific fields, the problems being of a somewhat different kind, terms have been also collected extensively from indexes and lists.

The Literary Vocabulary

One third of the total number of citations and former definitions consisted of literary or nontechnical material. This has been analyzed, selected, and defined by the General Editor and some of the Assistant Editors of the Dictionary Staff, among whom were Dr. Percy W. Long, Dr. John P. Bethel, Miss Rose F. Egan, Mr. Edward F. Oakes, and Dr. Lucius H. Holt.

Special Subjects

In the technical and scientific fields, the material has been edited by more than two hundred Special Editors, widely distributed throughout the English-speaking world. All special subjects, and the editors by whom they were treated, are listed on pages xviii-xxi. The growth of recorded and available knowledge in all these subjects has rendered extremely difficult the task of choosing terms to be entered, and of condensing the wealth of material to manageable proportions.

While dictionaries, glossaries, indexes, and checklists of special subjects have been examined, no word has been entered in the New Webster merely on the authority of any other dictionary, special or general, and no definition in this Dictionary has been derived from any other dictionary. Every definition in a special subject has been written by the editor of that subject on the basis of completely independent sources of information. In other words, departmental dictionaries have been utilized only to verify the existence of words, and not as authorities for information about their meanings.

In many departments of knowledge there have been movements by important organizations to collect, to define, and to standardize the growing and changing terminology. Among these, the most important have been Aeronautics, Engineering, Colorimetry, Botany, Chemistry, Zoology, and Bacteriology.

Aeronautics

In Aeronautics, the definitions in the *Report of the National Advisory Committee* have been compared with the recommendations of a similar British Committee, and have served as the basis for the definition of these terms by the Chairman of the Committee, Dr. J. S. Ames, who is Special Editor for Physics as well as for Aeronautics.

Engineering

In Engineering, the reports of the technical committees of the American Institute of Electrical Engineers, American Society of Mechanical Engineers, American Society of Civil Engineers, American Society for Testing Materials, American Engineering Standards Committee, and the

American Standards Association, and the reports of the corresponding British associations have been fully consulted and utilized by our Special Editors in the departments of Electrical, Mechanical, Civil, Structural, and other branches of Engineering.

Colors

The labors of committees of the national Inter-Society Color Council and of the Colorimetry Committee of the Optical Society of America, and a number of private agencies, to collect and standardize thousands of names of colors have been utilized in the preparation of definitions of color terms by Dr. I. H. Godlove, who is chairman of the Committee on Measurement and Specification of the Inter-Society Color Council, and a member of the Colorimetry Committee of the Optical Society, and who has been intimately identified with others of these enterprises.

Zoology

In the field of Zoology the nomenclature and classification are those approved by the International Zoological Commission on Nomenclature. Among general works of value have been *The Cambridge Natural History* and Lankester's *Treatise on Zoology.* Among works of value in various subdivisions have been: Wheeler's *Social Life Among the Insects;* Ditmars's *Reptiles of the World;* Jordan, Evermann, and Clark's *Check List of North American Fishes;* Jordan and Evermann's *Fishes of North and Middle America;* Mortensen's *Echinoderms of the British Isles;* Tryon and Pilsbry's *Manual of Conchology;* Wenyon's *Protozoology;* Calkins's *Biology of the Protozoa;* the American Ornithologists' Union's *Check List of North American Birds*, edition 4; Stuart Baker's *Birds of India;* Miller's *Check List of North American Mammals;* Miller's *Mammals of Western Europe;* Witherby's *Practical Handbook of British Birds;* and Sharpe's *Hand List of Birds.*

Bacteriology

The classification and nomenclature of Bacteriology have been based on the recommendations and decisions of the Society of American Bacteriologists.

Radio

The list of Radio terms in the New Dictionary is now as nearly complete as it has been possible to make it. The new terms have been drawn from various journals, magazines, books, and technical reports, but to a very great extent the vocabulary has been augmented by Dr. J. H. Dellinger, Special Editor of Radio terms, as a result of his close familiarity with the whole field of radio research and activity throughout its development from 1910 to the present time.

Photography and Motion Pictures

The vocabulary of Photography has undergone a number of changes and has received many additions, especially through the development of color photography, amateur cinematography, and the sound motion picture. Many additional terms dealing with Motion Pictures were secured from the *Transactions* and the *Journal* of the Society of Motion Picture Engineers. The vernacular of the motion-picture studios was compiled by a professional cameraman.

Chemistry

The collection of terms used in Chemistry has been greatly facilitated by the use of the material and indexes contained in *Chemical Abstracts*, the publication of the American Chemical Society, which periodically reviews all current work in its field. A systematic examination was also made of Mellor's *Comprehensive Treatise on Inorganic and Theoretical Chemistry;* Thorpe's *Dictionary of Applied Chemistry;* Allen's *Commercial Organic Analysis;* and various other works. The Special Editor for Chemistry, Dr. Austin M. Patterson, was for several years the editor of *Chemical Abstracts*, and is a member of the International Committee on Organic Chemical Nomenclature.

Physics, Astronomy

In Physics, Astronomy, and Astrophysics radically new conceptions of the nature of energy and the structure of matter have resulted from the work of Rutherford, Planck, Bohr, de Sitter, Eddington, Jeans, Lemaître, and others, while new theories of the fundamental laws of the universe itself have followed from Einstein's postulation of the theory of relativity. The editing of the material in Physics, an especially difficult task, has been undertaken and carried through by President Ames of Johns Hopkins University.

Mathematics

The vocabulary of Mathematics has been augmented from recent mathematical works and the publications of learned societies. It is now as complete as it can be made in a nontechnical reference book. The subject of *tensor analysis* is now adequately treated for the first time in a dictionary. Recent works of special value have been L. E. Dickson's *Modern Algebraic Theories*, and L. P. Eisenhart's *Riemannian Geometry.*

Medicine

In the field of Medicine new terms have been collected especially from the *Journal of the American Medical Association.* In many cases the rulings of such organizations as the American Society of Bacteriologists or the American Chemical Society have been accepted as representing the best current usage. Certain of the newer fields, such as Vitamins, Nutrition, and Endocrinology, and recent aspects of Immunology, have required special attention. Osler's *Principles and Practice of Medicine*, Howell's *Textbook of Physiology*, and MacCallum's *Textbook of Pathology* have been of special use in writing the definitions.

Pharmacy

The newer terms in Pharmacy have been collected by reading treatises not only on pharmacy, but pharmacology, pharmacognosy, pharmaceutical chemistry, chemotherapy, materia medica, and cosmetics, as well as the lay press and the pharmaceutical and medical journals. The nomenclature followed is that of the *United States Pharmacopoeia*, the *National Formulary*, and the American Chemical Society.

Dentistry

Research and education in Dentistry, and the extension of public interest, have required a considerable increase in vocabulary entries in that subject. Dental periodicals, textbooks, and dictionaries have been examined. Especially useful have been the *Journal of the American Dental Association* and Anthony's *Dental Cosmos.* Nomenclature follows the official international Latin terminology adopted by the Anatomical Society at Basle in 1895, so far as that code applies, supplemented by various reports of the Committee on Nomenclature of the American Dental Association.

Veterinary Science

In the field of Veterinary Science, the publications of the U. S. Department of Agriculture are used as a general basis. Many of the terms used are based on the Style Manual of the U. S. Government Printing Office. In the use and spelling of terms that do not occur in this manual, reliance is placed on the usage of the American Veterinary Medical Association and the United States Livestock Sanitary Association. Both of these organizations represent advanced thought in the scientific and regulatory phases of veterinary work. For terms in the related field of livestock breeding, feeding, and management, a study has been made of recommendations of the terminology committee of the American Society of Animal Production. In the case of new terms not yet in general use by scientific organizations, the Department of Agriculture has found it necessary, in some cases, to establish its own terminology largely for regulatory purposes. These terms likewise have been accepted in cases where the words give promise of coming into regular use.

Botany

In Botany, all former definitions and all new ones have been made to conform to the latest discoveries in the science, to the most recent and authoritative revisions of plant families, and to the greatly increased knowledge of tropical American economic and garden plants. The number of common and vernacular names of plants has been greatly increased, and little-known names are cross-referred to the best known and fully defined names. The plant families of the world are now more fully covered than in any other one book, whether dictionary, encyclopedia, or botanical publication. The most important ferns of the world are included in the *Fern Table.* All grass terms and the *Grass Table* have been revised. All important genera and terms relating to fossil plants are included. All important terms for plant diseases, fungi, and lichens, all important terms for mosses, liverworts, and algae, and all forestry, logging, and lumbering terms have been defined. The names of economic plants, especially those producing drugs, foods, fibers, and timbers, and various useful plants of Tropical America, Australia and New Zealand, India, the East Indies, the Philippine Islands, and the Pacific Islands, are included. The New Edition contains a larger number of definitions of important genera than any other one book, because of our world-wide coverage of genera of floristic, systematic, economic, garden, or general interest. It is practically complete in old-fashioned, dialectal, and colonial vernacular plant names, cross-referenced to their modern equivalents. Among the more recent important works consulted have been: Bailey's *Manual of Cultivated Plants* and *Hortus*, Britton and Brown's *Illustrated Flora of the Northern States and Canada*, Gray's *Manual*, 7th edition, Clute's *Dictionary of American Plant Names*, *Index Kewensis*, *Supplements* 3–7, Jepson's *Manual of the Flowering Plants of California*, Popenoe's *Manual of Tropical and Subtropical Fruits*, Record and Mell's *Timbers of Tropical America*, Britton and Rose's *Cactaceae*, *Standardized Plant Names*, Sud-

worth's *Checklist of Forest Trees of the United States*, Standley's *Trees and Shrubs of Mexico*, and *Flora of the Canal Zone*, Van Wijk's *Dictionary of Plant Names*, Willis's *Dictionary of Flowering Plants and Ferns*, Rehder's *Manual of Cultivated Trees and Shrubs*, and Zon and Sparhawk's *Forest Resources of the World*. The Latin names of plants, wherever possible, conform to the INTERNATIONAL CODE OF BOTANICAL NOMENCLATURE adopted at Cambridge, England, in 1930. In a dictionary of world-wide scope it is not always possible to follow this code, because many monographs and floras that have not yet been revised in accordance with it contain the only authoritative Latin names of many plants. It was the judgment of the editors that such names be used here rather than to make the dictionary the place of publication of many "new combinations," in the technical sense of that term.

Agriculture

In the field of Agriculture, special cognizance has been taken of the publications of the United States Department of Agriculture, the agricultural experiment stations and extension services of the various States, and publications of similar official agencies in other English-speaking countries. The immediate avenue of approach to many of these publications has been through the thousands of abstracts of current investigations as printed in *Experiment Station Record*, of which our Special Editor for Agriculture, Mr. H. L. Knight, has been editor since 1923, and with which the Specialists in Agronomy, Horticulture, Agricultural Engineering, Animal Production and Dairying, and Agricultural Botany have been associated for many years. Standard manuals, textbooks, and other works of reference in the various subject-matter subdivisions have been freely consulted as to prevailing usages, but in addition much scrutiny has been made of original sources of information available through the United States Department of Agriculture Library, containing nearly 250,000 volumes. Much weight has also been given to definitions and terms formulated and accepted by national societies representing the various fields. Thus, the Special Editor in Agricultural Engineering, Mr. R. W. Trullinger, has been for several years chairman of the nomenclature committee of the American Society of Agricultural Engineers. This committee has given much consideration to questions of terminology, and through this channel a large number of new terms have been added and defined in the New Edition, obsolescent material has been eliminated, and a thoroughgoing revision has been effected, resulting in by far the most adequate treatment of this relatively new subject available in dictionary form. Due consideration has likewise been given to the findings of terminology committees of the American Society of Agronomy, the Society of Animal Production, and other organizations. While the aim has been to avoid extremes and theories representative of individual idiosyncrasies rather than generally accepted usage, it has been the endeavor to go into these matters thoroughly and to recognize such conclusions as have gained mature and authoritative approval.

Psychology

In the field of Psychology, there is great popular interest in the results of workers in Psychoanalysis, Psychiatry, Behaviorism, and Gestalt Psychology. A wide range of literature dealing with all these new fields has been thoroughly examined.

Religion and Theology

In the fields of Religion and Theology, terms and meanings have not increased or changed so much as in other fields, but modern scholarship has verified, corrected, and augmented previous information. The religions of southern and western Asia have been covered with greater thoroughness and exactness. The Jewish Religion and Jewish Institutions have been treated from the standpoint of modern scholarship. The terminology of the Anglican Church and of the Protestant Episcopal Church has been re-examined, and, whenever necessary, supplemented or redefined. Both the theological and the institutional sides of Protestant denominations have been handled by various authoritative students. The terms used in Mormonism have been defined by an editor occupying an official position in that church. Terms used in Christian Science have been defined exactly as authorized by official sources. The Orthodox, or Eastern, Churches, have been given more extensive treatment than in any other general dictionary.

Catholic

The vocabulary, in the New Edition, of terms referring to topics distinctively Roman Catholic has been completely checked with Catholic Encyclopedias and Dictionaries, and the new definitions have been based on the researches of modern scholars in the fields of Theology, Church History, Canon Law, Liturgy, and Archaeology. The traditional theological terminology, often used in the nineteenth century in wholly new and different senses, has been critically examined, and the various meanings have been differentiated. The introduction of many new liturgical terms into the language, and the development of liturgical science, called for new and more extended treatment. The publication of the revised *Code of Canon Law* in 1917 has made it necessary to redefine both the historical and the modern significance of many terms. The language of monasticism, both technical and popular, has been critically examined and, where necessary, redefined. The names of all the principal Orders and Congregations have been included, with full descriptive treatment. The revision of all these Catholic terms, and the defining of new terms, has been done by an authoritative scholar of the Catholic Church.

Philosophy

In Philosophy, entries covering the great schools and leading authors have been rewritten by a new method, designed to bring out for the general reader their leading tenets, and especially those doctrines which represent their most important influence upon current thought. The philosophic definitions of those terms which have manifested the increasing influence of new conceptions in physics, biology, and the other sciences, have also been revised. Readers of such authors as Whitehead, S. Alexander, and Bertrand Russell will find that terms and meanings original with these writers and tending to become current in philosophic literature have been included. Not only the traditional logic but the subject as conceived by the newer schools is adequately covered (see LOGIC, in the *Vocabulary*).

Petrology

The terms in Petrology and Petrography in the New Edition have been largely drawn from the collections in the literature of the subject made during the past quarter of a century by the Special Editor, Professor Johannsen. The classification of rocks is based on their constituent minerals, a system now followed almost universally by petrologists.

Geology

Practically all geological terms now in use by geologists are included in the vocabulary. The nomenclature is based on the decisions or the usage of the International Geological Congress, the Geological Society of America, the United States Geological Survey, and on a general survey of geological publications. Geikie's *Textbook of Geology*, Chamberlin and Salisbury's *Geology*, and Pirsson and Schuchert's *Textbook of Geology* have been valuable sources of information.

Mineralogy

New material in Mineralogy has been drawn principally from *Mineral Abstracts*, an exhaustive summary of current mineralogical literature, issued by the Mineralogical Society of Great Britain, and "New Minerals," a section of the *American Mineralogist*. Dana's *Textbook of Mineralogy* (Fourth Edition, edited by W. E. Ford) has also been an authority of weight.

Archaeology

Archaeological research, not only in Egyptian, Semitic, and the seemingly inexhaustible cuneiform sources, but also throughout the Aegean area, in central and western Europe, in Persia and northwestern India, in northern Africa, and in Central America, has produced noteworthy results during the past two decades. Many of the important results have been published in such general works as *The Cambridge Ancient History*, Breasted's *Ancient Times*, Olmstead's *History of Palestine and Assyria*, Albright's *Archaeology and the Bible*, and Speiser's *Mesopotamian Origins;* many others have been as yet recorded only in the learned journals and in monographs; still others are available only in publications of untranslated texts or in the original uncopied inscriptions scattered through the principal museums of the world. All these sources have been searched for new terms and new information as a preliminary to the selection of entries and the composition or revision of definitions.

Anthropology

Recent exploration and the opening up of new areas to commerce have made possible far more extensive and thorough studies in Anthropology. Many ethnographic lists, some of them not yet published, and the indexes of periodical literature in this field, have been thoroughly searched. The number of names of primitive tribes, although not complete, has been very greatly increased.

Military

The background of the military vocabulary remains unchanged by the wars of recent years. From the classic writers are taken the terms which have been long used in discussing the art of war. For the terms originating more recently, the military journals of the United States,

France, Germany, and Great Britain, and the records in the Historical Section of the Army War College have been freely consulted. Of special value is a glossary published for the use of the Infantry School at Fort Benning. Many words of modern coinage have been defined only after consultation with individual authorities actively working in a particular field of the military art.

Nautical and Naval terms Increase in the number of nautical and naval terms included has resulted from the consultation of additional sources available since the last edition. The following works have been of special value in the checking and revision of the definitions throughout this New Edition of the Dictionary: Biddlecombe's *The Art of Rigging*, Stephen B. Luce's *Seamanship*, Austin M. Knight's *Modern Seamanship*, E. Keble Chatterton's *Sailing Ships and Their Story*. In addition, official publications of the Navy Department were available and were freely consulted. For some of the archaic or obsolete terms and meanings, the facilities of the fine public libraries in Philadelphia, Penn., and in Camden, N. J., were used. By these various checks the authority of the definitions has been assured.

Philology and Linguistics The terms in this field have been edited by Dr. Bender, editor also of Etymology. Names of hundreds of dialects and languages are now defined for the first time in any dictionary. Such important recently discovered languages as Hittite and Tocharian are encyclopedically treated. The language families of the world have been reclassified, the more important groups being presented in formal tables. Special attention has been given, in the light of recent research, to the description and classification of the more remote and obscure tongues, such as those of Africa. The definitions of the names of the American Indian languages were written or revised by Joseph Coy Green, A.M., formerly of Princeton University, who made for these and for etymological purposes a comprehensive and intensive survey of available Amerind material, both printed and unprinted. In linguistics, as in philology, many new terms have been added, the result mainly of the recent advances in that science. There is less dependence upon the classical tradition, and a broader and more accurate reflection of the modern scientific approach to the study of language.

Phonetics Phonetic terms have been reviewed and defined by Dr. Kenyon, also Consulting Editor in Pronunciation. During the past twenty-five years an increasing interest in phonetics has been manifested, not only among linguistic scientists, but by college teachers of English-language courses with large undergraduate classes, by teachers of Modern Languages, and by teachers of Speech. The New Edition endeavors to meet this wider interest not only by the inclusion of all terms, old and new, that have gained general acceptance, but by reducing to the minimum consistent with accuracy the purely technical elements in the definitions.

Grammar Both the long recognized and the more recently emphasized aspects of language brought out by the study of Grammar are fully covered. The definitions form a consistent descriptive scheme reflecting the best current thought on the functions of words in sentences. Terms which are obviously the suggested innovations of individuals, and which have not received general recognition, are not entered. Important sources of terms and information have been Jespersen's *Philosophy of Grammar* and *Modern English Grammar* and Sapir's *Language*.

American Indians The New Edition covers, more completely than any other general dictionary in any language, the tribal names of American Indians in North, Central, and South America, as well as the American Indian gods, heroes, mythological beings, and terms relating to ethnology, archaeology, religion, folklore, and mythology. For tribes of the United States and Canada, the spelling used in official publications of the United States Government has usually been followed. For tribes of Mexico and Central America, Thomas and Swanton's *Indian Languages of Mexico and Central America and Their Geographical Distribution*, and for South America, Chamberlain's *Linguistic Stocks of South American Indians* and Brinton's *The American Race* have been used as guides in attempting to reach a standard of spelling. In the case of all except the least important tribes, the linguistic affiliation and the territory occupied are named. Definitions of names of the more important tribes contain information in regard to the physical characteristics, culture, history, and present condition. The New Webster is the first dictionary ever published in which words of American Indian origin (exclusive of tribal, geographical, and other proper names) are etymologized with the same care and completeness as words of Indo-European and Semitic origin. Hundreds of these words are comparatively rare names of plants and animals, but others (*canoe*, *hurricane*, *potato*, *tobacco*, and *woodchuck*) are common English words, the American Indian origin of some of which has now been ascertained for the first time.

Government The newer, and especially the postwar, terminology of government and politics has been collected from many sources, and has been checked from yearbooks and from the annual *Indexes* of *The New York Times*.

Sociology The redefining of many older terms and the defining of numerous newer terms in sociology have been necessitated by the development, during the past twenty years, of a new and more precise terminology, especially in the fields of social interaction, social psychology, and social anthropology.

India The recently enhanced interest in the political situation in India, and the growing knowledge of Indian thought and art, have necessitated the inclusion of new words and a redefinition of others.

Ireland Changes in the political, economic, and linguistic status of Ireland, and an enhanced interest in its native literature and its cultural history and relations, now the most important field of Celtic studies, are reflected in the treatment of this part of the vocabulary.

China Political, economic, and social ferment in China, largely the result of the impact of Western civilization, has caused the production of a new literature of interpretation of Chinese civilization. In this literature appear many terms, both English and Chinese, for various aspects of Chinese culture, which have required informative treatment for the English-speaking reader. The New Edition is especially rich in its fresh interpretation of Chinese life and institutions. The principal sources of information, in addition to the special editor's intimate knowledge, and the extensive libraries available to him, have been Samuel Couling's *Encyclopaedia Sinica* and Herbert A. Giles's *Chinese-English Dictionary*.

Business Business, Finance, and Economics have also been covered extensively, and many terms dealing with recent economic tendencies and with the newer forms of business have been defined for the first time.

Law The admirable labors of Mr. F. S. Allen in treating the inherited vocabulary of law have been supplemented in this edition by the work of the Dean of the Law School of Harvard University, Dr. Roscoe Pound. Dean Pound has presented the modern concepts as exhibited in recent statute law, as well as the new terms and new meanings of older terms used in international law. Recent volumes of *Research in International Law* have been exhaustively consulted.

Music The special editor in Music has for many years been interested specifically in the profession of music teaching in schools and colleges, but he is also well known as a musicologist, especially in the fields of theory and terminology. The vocabulary of this edition has added the newer terms, such as *atonality* and *polytonality;* has included various additional older terms not previously entered; and has clarified and simplified a very large number of the former definitions with a view to making them more quickly intelligible to the dictionary user.

Libraries Few institutions in English-speaking countries during recent decades have equaled Libraries in their remarkable growth and development. As our public and institutional libraries have broadened their service and been brought into contact with more individuals and different classes of people, the terminology of the professional librarian has become better known and more commonly used. The treatment of library terms in the New Edition has been in charge of H. C. Wellman, Librarian of the Springfield, Mass., City Library, who has been in intimate and practical touch with the affairs of the American Library Association. Important sources of information were Cutter's *Rules for a Dictionary Catalog* and Bostwick's *American Public Library*.

Weights and Measures Names of weights and measures are given in *Tables* with their equivalents in the metric system and in the common units of the United States and Great Britain, together with other useful information (see WEIGHT, *Table;* MEASURE, *Table*, in the *Vocabulary*). Units of weight and measure of ancient and modern times, including units

which were in use in many countries prior to the adoption of the metric system, are covered. To secure accuracy in definition the terms have been checked by various specialists in the employ of the Federal Government and in some of the State Governments. As original sources, various reports and special treatises prepared by U. S. consular officers, and also official pamphlets, reports, and statutes from foreign governments on their native weights and measures, have been freely used. Numerous authoritative general and special works on the subject, published in many countries and languages, have been consulted, which could not be mentioned in the space limited to this introduction.

Machinery, Tools, etc.

The rapid advance in mechanical technology during the last quarter century has made it imperative to use the most recent publications in this field as sources. Books were practically out of the question, excepting such standard works as Colvin and Stanley's *Machine Shop Primer*, Colvin's *American Machinists' Handbook*, Kent's *Mechanical Engineers' Handbook*, and Marks's handbook of the same title. For most of this field, current periodicals were used, such as the *American Machinist* and *Mechanical Engineering*. Terms involving standardization features were checked with the publications of the American Standards Association and the United States Bureau of Standards. In the majority of instances, recourse was had directly to manufacturers' catalogues, for which purpose the collection in Whipple's *Catalog Studies*, brought up to date annually, was found most valuable.

Printing

The more recent mechanical developments of printing, engraving, and allied industries have been fully treated, while the terms of the older craft, always of great historical interest, and most of them still in use, have also of course been retained, many definitions having been expanded or rewritten. The names of scores of type faces, including newer faces that have come into wide use, have been entered and exemplified with a sample of the type they name.

Card Games

Card Games have been thoroughly treated, both from the historical and from the modern aspects, by a lifelong authority and writer on the subject, R. F. Foster. Terms and information have been chiefly drawn from his private library of 300 volumes on this subject.

Numismatics

The many new monetary units and the changed denominations and values of coins resulting from monetary systems created or modified since the World War are given in the comprehensive tables of modern coins (see COIN, *Table*, in the *Vocabulary*). The names and equivalents of obsolete coins, which command interest because of their historical and literary uses, have been thoroughly treated in the light of modern research, usually in their places in the *Vocabulary*. For the information as to those coins that are chiefly of numismatic interest, such works as Frey's *Dictionary of Numismatic Names*, and Head's *Historia Numorum* have been relied upon; for information regarding recent coins, the sources have been publications of the United States Mint and of the Treasury Department.

Philately

Terms in Philately have been selected and defined after a complete survey of modern philatelic literature, including especially the Scott *Standard Postage Stamp Catalogues*, the annual issues of which have been the principal philatelic reference books in the United States for more than 70 years. In addition to this authority, periodical literature and the reference works of Fred J. Melville of England and of B. W. H. Poole, Willard O. Wylie, and Kent B. Stiles of the United States have been consulted.

Philippine Islands

Recent developments in the Orient have again increased popular interest in the Philippine Islands, where many thousands of Americans have lived during the past quarter of a century. Popular and colloquial terms dealing with Philippine life and institutions have been fully covered, even though some are only partly Anglicized. All botanical and zoological words of economic importance are defined. In recent years new studies have been made of the Malayan and Indonesian peoples of the Islands, and many of the earlier tribal names have been replaced as a result of fuller knowledge. Kroeber's *People of the Philippines*, issued by the American Museum of Natural History, has been the chief source of information for this last class of terms.

Slang, Dialect, and Colloquialisms

The entry, definition, and proper classification of selected nonstandard and substandard English words have been greatly extended in the New Edition. Both Samuel Johnson and Noah Webster conceived it to be a duty of the dictionary editor to maintain the purity of the standard language. However, with the growth in literacy of the past century, and the increase, in fiction and drama, in radio and motion picture, of the use of dialect, slang, and colloquial speech, it has become necessary for a general dictionary to record and interpret the vocabularies of geographical and occupational dialects, and of the livelier levels of the speech of the educated. The shifting status of many expressions in slang and colloquial speech has made it necessary to review and rejudge the status and validity of all such terms, whether newly collected or contained in former editions of this Dictionary. Slang terms and slang meanings of standard words have been entered only when there is evidence that the slang term has been in use for a considerable length of time, and when it has been used in a printed work which is likely to continue being read. The carefully checked judgment of the editorial staff concerning such terms is expressed in the italic labels *Colloq.*, *Dial.*, *Slang*, etc., appended to the definitions. The Dialect collections of the New Edition have in large part been edited by Dr. Percy W. Long.

Lowland Scottish

The use of Lowland Scottish not only as a living speech in a large part of Scotland and in many parts of the world where Scotsmen have settled, but in the works of such distinguished writers as Burns, Scott, Stevenson, and Barrie, has made necessary a fuller treatment than was required by mere local dialects. The editors have aimed at including all Scottish terms occurring in significant literary work, and these have been edited for the New Edition by Miss Margaret Wattie, under the supervision of Dr. William A. Neilson.

Obsolete Words and Meanings

This edition follows the policy of earlier editions in covering all the literary and most of the technical and scientific words and meanings in the period of Modern English, beginning with the year 1500. The only earlier author completely covered is Chaucer. Obsolete meanings of living words are, of course, included. But obsolete spelling variants for the period before the year 1600 are not entered exhaustively, except for such outstanding writers as Chaucer and Spenser, who are still reprinted in their original spellings.

Trade-Marks

In a civilization functioning largely through manufacturing and commerce, trade-marks have made a distinct contribution to the common vocabulary. The public has expressed its curiosity about the pronunciation, the derivation, and the exact meaning of large numbers of words originally coined for use as trade-marks. All entered words that have been suspected of being trade-marks have been investigated in the files of the United States Patent Office at Washington, D.C., and those shown to have been originally used as trade-marks have been defined as such. The inclusion of a word in this Dictionary is not, however, to be considered an expression of the publishers' opinion as to whether or not it is subject to proprietary rights, but only as an expression of their belief that such a word is of sufficiently general use and interest to warrant its inclusion in a serious work of this kind. No definition in this Dictionary is to be regarded as affecting the validity of any trade-mark.

Reformed Spellings

There has been so general an expression of support for simplified spelling by scholars and linguistic scientists that in this edition of the *New International Dictionary* there have been included most of the simplified spellings recommended by the American Philological Association and by the Simplified Spelling Board.

Titles of Books, etc., and Names of Characters

The number of titles of important literary works, paintings, works of sculpture, operas, etc., has been greatly increased in the New Edition. The date of composition or publication, or both, and the name of the author, painter, sculptor, or composer, of thousands of important works, are given. The names of important characters in fiction, drama, opera, and the like, frequently with a summary statement of the role played by them, are entered with pronunciation and the place of occurrence.

Scripture Names

All Scripture proper names, whether in the Authorized Version, the Revised Version, or the Douay Version of the Bible, or in the Apocrypha, have been entered and the pronunciation given, either in the Vocabulary or in the *Gazetteer* or *Pronouncing Biographical Dictionary*. All the more important names have also been defined, usually with

A B C D E F G H I J K L M

a reference to the place of their occurrence. Less important names are entered, with the pronunciation, in the lower section of the page. Important Biblical place names, or names of peoples occurring in the rich materials of archaeological research, especially during the past twenty-five years, have been treated in the light of such results.

Foreign Quotations

Quotations and proverbs from classical and other foreign languages have been entered and translated, if they occur in such English writings as are commonly read. In all such entries, the pronunciation and the language of origin are always indicated.

Pronunciation

The indication of the accent or accents of a word, which was the only clue to pronunciation offered in the earlier English dictionaries, is no longer sufficient. Constantly increasing interest in the pronunciation of words demands of modern dictionaries a full phonetic respelling of vocabulary words and names. In this Dictionary, as in all editions since 1890, such respelling is given within parentheses immediately following the vocabulary entry. Such full and exact recording of pronunciation as is thus given requires not only a degree of aptitude obtained only through special training and long experience, but a breadth of view that can comprehend the problem of pronunciation as a whole, with special attention to its development in the present as well as in the past.

The first necessity confronting the pronunciation editor is the adoption of a standard in general accord with which the pronunciations of the thousands of individual entries must be uniformly indicated. In this edition, as in preceding Webster Dictionaries, the standard adopted is based upon the cultivated usage of all parts of the English-speaking world. It must, however, be clearly understood that, in the application of such a standard — or indeed, of any standard — to individual cases, certain definite limitations are fixed by the very nature of a work of general reference such as this. Of these limitations two stand out especially.

To begin with, each word must be isolated and considered as an unrelated entity and its pronunciation indicated from this point of view. Though the necessity for it may seem obvious, this practice of the dictionary is so often lost sight of by consultants that it seems well to call attention to it here. It would be impossible, even were it desirable, to attempt to record the pronunciation of "running speech," that is, of words as elements in connected spoken discourse, to attempt to indicate rising or falling pitch, syllabic emphasis or lack of emphasis, contraction or prolongation of sounds — in short, the countless minor variations to which the pronunciation of a word is susceptible under the influence of other words with which it is temporarily associated.

The second limitation imposed upon the pronunciation editor consists in the necessity for making a choice among the different styles of speech suitable for different occasions. In this edition, the style adopted for representation is that of formal platform speech — and this must be clearly remembered by consultants of the pronunciations here given. The omission of less precise pronunciations of familiar words does not, of course, indicate either that those pronunciations do not exist or that the editors of the dictionary refuse to recognize them. They do exist, and very naturally so when the occasion suits. In familiar casual conversation consonants are often dropped or slurred, vowels of unaccented syllables become indistinct, syllables are often dropped out of the pronunciation of words. The recording of all such colloquial pronunciations of every separate word is not, however, possible in such a Dictionary as the New International.

A fuller discussion may be found in the *Introduction: Pronunciation*, §§ 4–9; §§ 70–72.

The pronunciations contained in this Dictionary are not theoretical. They represent actual speech — the speech of cultivated users of English, speaking formally with a view to being completely understood by their hearers.

There are, of course, a host of other problems before the editor of pronunciation. Geographical variations must be noted and recorded. A marked difference between American speech and British (as in *schedule, laboratory*) is the most obvious of such variations. For fuller discussion, see *Introduction: Pronunciation*, § 4; § 68. Less easy to evaluate are narrower regional differences. In many words of chiefly dialectal or regional use the prevailing pronunciations of the chief area of usage must be determined, often by direct inquiry from persons native to the region; and in many such instances, where a word crops up in widely separated parts of the English-speaking world, more than one such pronunciation must be recorded. In indicating these variations of pronunciation, British preferences are indicated by the label *British* (abbreviated to *Brit.*) prefixed to the phonetic respelling to which it applies, Scottish pronunciation by the label *Scottish* (*Scot.*), and dialectal forms by the label *Dialectal* (*Dial.*). In many instances the supplying of two or more pronunciations, even with necessary identifying labels, is insufficient to explain fully the geographical distribution; for such words an explanation is provided either within the pronunciation parentheses or, as a note, at the end of the entry, a cross-reference to the note being given within the pronunciation parentheses.

Nautical words, too, present much the same sort of problem, and wherever the nautical pronunciation differs from the best accepted landsman's usage, both pronunciations are given, the nautical being preceded by its identifying label (*Naut.*).

Besides variations of these kinds, there are the important and often perplexing changes of pronunciation brought about by the passage of time. Where such a change is perfectly obvious and the new, or newest, pronunciation definitely established (as in the word *apron*, ā′prŭn, also pronounced ā′pẽrn), the pronunciation editor's task is merely one of recording. In most of the instances, however, the matter is not so simple. For there are today hundreds of words pronounced in two or more ways by the persons on whose speech the standard pronunciation of the Dictionary is based. The editor's problem in the case of such words is many-sided. He must decide first how many of these pronunciations are widely enough used to demand record in the Dictionary, and then the order in which they are to be arranged so as to indicate the usage or usages with widest currency. In making the decision he must discover the kinds of persons who use the new or newer pronunciations and must weigh this evidence against the printed evidence of dictionaries and similar reference books and determine, as far as it is possible to do so, not merely the present status but the tendency of pronunciation of such words — what might be called the "drift of pronunciation."

In preparing the pronunciations for this edition, then, every word contained in the previous edition has been scrupulously compared with the most recent data. Painstaking effort has again been made to ascertain the best present usage, American and British, all important modern dictionaries and all available lists of recent phoneticians and orthoepists have been carefully consulted and compared, and the information thus secured has been supplemented by personal observation. Inquiries regarding thousands of individual words have been addressed to leading scholars and, in the case of technical words, to specialists and experts; and lists of words, both general and technical, of doubtful pronunciation have been referred to cultivated speakers in various parts of the English-speaking world, in order that they might indicate the pronunciations preferred in the cultivated speech of their locality.

The Webster Phonetic Alphabet, as modified for use in the first edition of the *New International Dictionary*, has been retained with but three minor alterations (ȩ, ɨ, ng; see *Pron.*, §§ 116, 154–155, 177), since it was deemed unwise to change essentially a system which has met with such wide acceptance and which has become so well known, not only from its use in Webster's Dictionaries, but also from its general adoption by textbooks and works of reference. A comparison of the Webster Alphabet with the International Phonetic Alphabet will be found in the *Introduction: Pronunciation*, on page xxii.

The Pronunciation Editor of this edition has been Mr. Paul W. Carhart. Dr. John S. Kenyon, the Consulting Editor, has been a constant adviser on all matters of policy and on their application in detail. Office Assistants have been Miss Elsie Mag and Mr. Edward Artin.

Much important material will be found in the article on *Pronunciation*, pages xxii–lix, of this *Introduction*. This has been thoroughly revised and rewritten by Dr. Kenyon. Thousands of individual entries in the Vocabulary are referred to numbered sections of this article, in which far fuller and more systematic information is given than can be included in any single entry. For many words, also, the reader is referred to § 277 of *Pronunciation*, in which will be found a *Table* of the pronunciations of over 1100 words that are differently pronounced by different authorities.

Each word has two aspects, form and meaning. In both respects the word is the product of a history, often long and complicated,

sometimes obscure. The Dictionary gives the current forms and

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meanings of words, and also those that are preserved in English literature or survive in dialect or have only recently disappeared from the spoken language. But back of that is a record of origin and development that is of value and interest for its own sake as well as necessary to a full understanding of the word itself. This record, so far as it is known or surmised, is inserted within square brackets between the word and its definition. This is the Etymology — the history of the form and meaning of the word.

For each word of sufficient importance, the etymology thus presented attempts to show the development of form and meaning within the language, the source whence it came into English, and its ultimate derivation and relationship. But words from the Chinese, for example, or from Bantu, or American Indian languages, usually cannot, and for our purpose need not, be traced farther than to their origin in those languages, although occasionally reference can be made to other words from the same or related elements. The future holds much promise for the historical and comparative study of these remoter languages, but they have not so far received the philological attention that has been given to such families as the Indo-European and Semitic, which concern our civilization so much more closely and are so richly recorded in their ancient literatures. The chief sources of the English vocabulary are to be found within the Indo-European family to which it belongs, and the great majority of our words are either from Anglo-Saxon or from Latin, directly or through French. For such words a complete etymology includes both history — that is, recorded forms as far back as they can be traced — and the prehistory of Anglo-Saxon or Latin words as established by the comparative evidence of related languages, such as Old Norse and Gothic for the Teutonic group (to which English belongs), or Greek and Sanskrit for the Indo-European family (to which both Latin and the Teutonic languages belong).

In this Dictionary, then, the typical etymology of an English word inherited through Anglo-Saxon from common Teutonic or from common Indo-European, or of one borrowed at any period or through any medium from Latin or Greek or other Indo-European language, consists of two parts, divided by a semicolon. The first part deals with the recorded history of the word, and the second, usually introduced by the words "akin to," throws light on its prehistory. Related English words, derived by different channels from the same source (as *beef*, *cow*), are connected by cross references, and often one group leads to another until dozens of entry words are so linked. And since there are not many important groups of Indo-European words that find no representation in English, the total forms a fairly complete picture of Indo-European etymology.

The first item within the brackets indicates the immediate source of the English word (see BOUNTY, in the *Vocabulary*). If the form in the source is identical with that of the English word, the word is not repeated (see ALBUM). Elsewhere in the etymology the form is given after the name of the language (see ATHLETE). If at any point the meaning is not given, it is to be taken as agreeing with that of the preceding word or words (see 1st ARTERY). In many instances it is difficult or impossible to say with certainty whether a word has come into English directly from Latin or through French or Old French. If, after a careful consideration of all the evidence, real doubt still remains, then the etymology is introduced by the (abbreviated) words "Old French (or French) or Latin," followed by the history of the French and Latin words (see ALLEGORY). Often a word is borrowed partly from French, partly from Latin, and the etymology begins with the words "French and Latin" (see FUNCTION). Care is taken in the determination and designation of period and dialect, as Old North French, Anglo-French, Middle French, Late Latin, Vulgar Latin, Medieval Latin, Anglo-Latin, Middle Low German.

In the spelling or transliteration of foreign words in the etymologies, recognition has been given both to national and to scholarly practices and trends. Between these two there is less discrepancy than formerly, and both tend more and more to the reduction of unnecessary characters or diacritical marks, and to an increased use of the Latin alphabet. Thus, for Lithuanian or Albanian, philologists are quite content to use the simple alphabets that now prevail in those countries, instead of the elaborate diacritical systems that were formerly considered necessary to scholarship. The macron serves for length of vowel better than the apex in Old High German or the acute accent mark in Old Irish, both preserved by an older philological tradition. Hence, in the present edition, Greek is transliterated in the etymologies, Anglo-Saxon *thorn* and *edh* are alike rendered by *th*, *ēa* by *ēa*, and similar reductions are made throughout when permitted or required by the best philological usage. And when in any country a reformed alphabet or spelling has been introduced and generally accepted on the authority of Government or Academy, those reforms are accepted here. But beyond these steps, and beyond the normal need or expectation of the specialist in any language, there has been no reduction, and there has been none for the mere sake of reduction. Distinct sounds are still usually marked as distinct sounds, and different signs in non-roman alphabets are transliterated by different roman characters. In the romanization of words from Oriental languages, especially those written in Sanskrit or Arabic characters, or in alphabets allied to either, as Hindustani, Persian, Turkish, Malay, the system followed is, with some elections and slight modifications, that approved by the International Congress of Orientalists, used by the British and American Oriental societies, and published at intervals in the *Journal of the Royal Asiatic Society.*

The etymologies in the present work are built on the sound technique and the solid achievements of Mahn and Sheldon in previous editions. But philological scholarship has so widened and deepened in recent years that mere revision in detail would not have satisfied modern needs. The revision has been carried out with such comprehensiveness, independence, and thoroughness that the present work is entitled to be regarded as marking a new stage in the science of English etymology. There are here a large number of acceptable etymologies that cannot be found in any other publication. Many large groups of ultimately related English words, as those of *hive* and *heap*, *plat* and *plot*, *spike* and *spoke*, are given new and more connected treatment. Whenever, in such groups of words, the development of meaning is not clear or the semantic connection not obvious, changes of meaning are explained or the basic idea underlying the group or groups is indicated. Much persistent effort has been devoted to the tracing of some thousands of loan words from more or less remote languages that have heretofore been left without etymology or ascribed vaguely to "native" sources. It is estimated that, of the total number of such hitherto obscure words, the origin of about 70 per cent has been found, sometimes only by recourse to speakers of the original tongues. And of course a great number of new words are here etymologized for the first time.

No pains have been spared to make the etymologies representative of the present state of philological knowledge and of the best contemporary philological opinion. Even the recently discovered Hittite in Asia Minor and the Tocharian in Chinese Turkestan have been called upon frequently for their contributions. All of the etymological dictionaries, and most other works dealing with etymology in the various Indo-European and Semitic languages, have been kept constantly at hand, as well as the ordinary dictionaries of those and remoter tongues. As a preliminary to the present work, abstracts were made of all articles having any connection with English and Indo-European etymology that have appeared within the past twenty-five years in the philological journals published in English, French, Dutch, German, Italian, and the Scandinavian and Balto-Slavic languages. No source of information on any word has been consciously neglected, and where so many authorities have been consulted it would be impossible to mention all and invidious to mention only some. But exception must be made of the Oxford English Dictionary, especially for its dated citations and its invaluable assistance in ascertaining the earliest appearance of words in the language.

The etymologies of the present edition were written by Harold H. Bender, Ph.D., Litt.D., Phil.L.D., Professor of Indo-Germanic

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Philology and Chairman of the Department of Oriental Languages and Literatures in Princeton University. He was assisted, especially in the tracing of loan words to their sources, by many specialists, notably the following: Professor Frank R. Blake, of Johns Hopkins University, in Tagalog and the other languages of the Philippines; Dr. Henry S. Gehman, of Princeton University, in Hamitic languages; Mr. Joseph Coy Green, now of the Department of State, Washington, in American Indian languages; Professor Philip K. Hitti, of Princeton University, in Arabic and the other Semitic languages; Dr. Arthur W. Hummel, of the Library of Congress, in Chinese; Professor F.

Courtney Tarr, of Princeton University, in Spanish and other Romance languages; Mr. Edwin H. Tuttle, of Washington, D.C., in Indo-Aryan, Dravidian, and Austronesian languages; Professor Shirley H. Weber, of Princeton University, in Greek and Latin; Dr. Alice Werner, of the School of Oriental Studies, University of London, in Bantu and other African languages; Professor Walter Livingston Wright, Jr., of Princeton University, in Turkish and allied languages. The abstracting of articles in the philological journals was done chiefly by Professor Stephen J. Herben, Jr., now of Bryn Mawr College. Among various graduate students of Princeton University who assisted in tracing scientific terms, and in indexing, reference work, and the like, special mention should be made of Mr. George C. Miles, now of Robert College, Constantinople, for his original contributions to the etymologies of words from the Ural-Altaic languages.

In addition to proper names, about one hundred words of Chinese origin have come into the English language, chiefly as a result of early trade contacts with China. These borrowings include especially names of plants, fruits, vegetables, governmental organizations, and the names of Chinese dynasties: words such as *ginseng*, *tea*, *kumquat*, *hsien*, *fu*, *Ming*. As the earliest trade relations were with Canton, the English romanization accepted by usage has usually attempted to approximate the sound of the word in the Cantonese dialect as heard and recorded by Westerners a century ago. But the pronunciation of Canton is not that used by the majority of the Chinese people, who speak the so-called "Mandarin," of which the dialect of Peking is the accepted standard. For that reason, beside the romanization that has come down by usage (the recorded English word), we indicate (in the etymology), wherever possible, the value of the sound in the Mandarin, or, as it is now called, the "national language," which is spoken over all of north, west, and southwest China, and is increasingly used in southeast China as well.

On Words from the Chinese

No system of romanization is capable of indicating unambiguously either the meaning or the sound of Chinese words. The accepted romanization for the Peking dialect, and the one here used, is the system invented by Sir Thomas Wade after the middle of the last century. In this system aspirated words are indicated by an apostrophe after the first letter of the word; or after the second letter in words beginning with *ch* or *ts*. As the Chinese language is monosyllabic and is strictly limited to some four hundred vocables, it follows that each vocable may have many different meanings. The meaning applicable to such a given monosyllabic sound, or vocable, can really be determined only when it is written as an ideograph or occurs in conjunction with other words which give a clue to the meaning. In order to reduce the confusion caused by the paucity of sounds, each of which is capable of many different meanings, the Chinese have from earliest times resorted to the expedient of pitching each sound in at least four different keys, each variation indicating a different meaning distinguishable by its own ideograph. For the Peking dialect these so-called "tones" are four in number; for central China there are five; and for southeast China as many as eight different tones, or keys, in which a single sound may be pitched.

In this Dictionary the four tones of the Peking dialect are indicated by the numerals 1, 2, 3, or 4 at the upper right-hand corner of the word. The value of the four tones can be rightly apprehended only when heard by the ear, but they may be roughly differentiated as follows: The first, or "upper even" (*shang p'ing*), is a monotone pitched slightly higher than ordinary speech; the second, or "lower even" (*hsia p'ing*), is pronounced with a quick upward inflection; the third, or "sinking" (*shang*), has a prolonged downward and then upward modulation; while the fourth, or "entering" (*ch'ü*), tone has the force of a word spoken with an air of decisiveness and finality.

The admirable work on Synonyms in the *New International Dictionary* of 1909, by John Livingston Lowes, now Francis Lee Higginson Professor of English Literature at Harvard University, under the advisory supervision of Professor George Lyman Kittredge of Harvard University, has been retained practically intact. The field covered is limited to nontechnical words and meanings; the distinctions indicated are based on actual usage; about six thousand illustrative literary citations are given, in order to exemplify in the case of each word the particular shade of meaning under discussion. So far as space has allowed, it has been an aim of the editors to give for each word a sufficient number of clear examples to make possible in some degree an independent survey of the facts. The citations have been drawn from writers — essayists, novelists, poets — whose works exemplify the best modern usage, and among these special weight has been given to those authors who combine idiomatic freedom of style with correctness. The best colloquial usage has always been kept in mind, and in exhibiting this, the great letter writers (notably Cowper, Gray, Lamb, FitzGerald, Stevenson, and Lowell) have been especially valuable.

Synonyms

It frequently happens that a word which is used in several senses has a number of more or less independent groups of synonyms. Thus, *contract* (*v.*) in the sense of "undertake by contract" has among its synonyms *promise*, *engage*, *pledge*. In the sense of "draw together," it is synonymous with *shrink*, *constrict*, *reduce*. All six words are synonymous with *contract*, but the words in the one group are not synonymous with those in the other. Such groups are set off, in the lists of synonyms, by semicolons, and the comma is used to separate words within each group.

The lists of synonymous words not accompanied by distinctions have been greatly increased in number and have been largely augmented. The distinctions in meaning of the words in these "finding lists" are evident from the definitions of the separate words.

Antonyms, or, often, cross references to an entry in which a group of antonyms is fully treated, have now also been inserted.

The added or augmented lists of synonymous terms, and the added antonyms, have been principally in charge of Mrs. Dorothy Leonard Artin.

A Brief History of the English Language, which has been a feature of the Merriam-Webster Dictionaries since 1864, has been revised by Professor George Lyman Kittredge of Harvard University. Much greater attention has been paid to the developments of the language in the modern period since 1600, and information has been incorporated concerning such recently discovered Indo-European languages as Hittite and Tocharian.

History of the English Language

The number of terms covered by pictorial illustrations exceeds 12,000. Every illustration in the previous edition has been examined and, if it proved no longer entirely adequate, a new and adequate drawing has been made. Several hundred new and original drawings of flowers and plants have been made by Mrs. Alice Earle Hyde, a well-known botanical artist; many hundred new drawings of mammals, birds, insects, crustaceans, invertebrates, etc., by Mr. W. H. Southwick of the American Museum of Natural History; and many hundred more, of architectural subjects, furniture, machinery, mechanical and scientific apparatus, etc., by Mr. Harry Kitson, Mr. James McKinnon, and Mr. Joseph F. Odenbach. Of particular interest and importance are Mr. Odenbach's sectional and diagrammatic illustrations showing in a simple way the construction and operation of various machines and apparatus such as the printing press, the linotype and monotype machines, the outboard motor, the telephone, the photo-electric cell, the sound picture machine, etc., etc.

Pictorial Illustrations

The eight plates of flags, seals of states, and arms of nations have been entirely revised, remade, and brought up to date with the addition of much new and interesting material. For the first time the flags of the forty-eight States of the United States have been presented in a single plate. Sixteen new color plates have been prepared and inserted. The plates of coins, medals, and orders were made, with the assistance of Mr. Sydney P. Noe and Mr. Howland Wood, by direct photography, from specimens in the collections of the American Numismatic Society, augmented by several orders from the collection of Mr. C. A. Locker. The paintings for the plate of birds were made by Mr. Lynn Bogue Hunt, of insects by Mr. Southwick, and of gems by Mrs. Katharine Burton Brimer. In the case of the gems particular acknowledgment is due to Dr. Herbert P. Whitlock, Curator of Mineralogy at the American Museum of Natural History, who personally selected, from the famous Morgan collection, the gems to be painted, and passed judgment on each of the paintings. The paintings of orchids, poisonous plants, State flowers, and wild flowers were made by Mrs. Hyde. The painting of the spectrum was made by Mr. Charles Bittinger, A.N.A., who also made the paintings for the color chart from the design of Dr. I. H. Godlove. The plate of butterflies and moths was made by direct photography from specimens loaned by the

Harvard Museum of Comparative Zoology through the kind co-operation of Dr. C. T. Brues. The portrait of Noah Webster, reproduced in colors as the Frontispiece, was painted by the well-known artist, Edwin Burrage Child, painter of portraits of John Bassett Moore, John Dewey, Lyman Abbott, etc. The direction of the preparation of the illustrations has been in the hands of Mr. H. Downing Jacobs, to whose artistic taste and fertility of resource the new book owes much.

Style

Printers' Style — spelling, compounding, capitalizing, and italicizing foreign words — has been determined on the basis of printers' usage. More than two hundred thousand citations, illustrating the practice of printers and publishers of carefully edited books and magazines, have been collected. The principal printing-office stylebooks have been consulted, especially the *Manual of the Government Printing Office*, Washington, D.C.; *Rules for Compositors and Readers at the University Press*, Oxford; *A Manual of Style*, the University of Chicago Press; and *Authors' and Printers' Dictionary*, by F. Howard Collins. Much advantage was gained through a conference with the editors in charge of publications of the United States Government while the Government Printing Office Stylebook was under revision. Many general principles governing these questions of style are discernible, especially with respect to compound words, but the editors have not been governed by any general theories which conflict with, or are contradicted by, actual usage. Whatever apparent inconsistencies may seem to exist are to be accounted for on the ground of preponderating usage. The General Editor and Mr. Charles Westcott of the Dictionary Staff have been principally responsible for this work.

The Pronouncing Gazetteer

The geographical and economic changes resulting from a world condition of instability during the past two decades have required a complete review of all the facts presented in the *Pronouncing Gazetteer*. The completion and publication of most of the great censuses, both in the United States and in foreign countries, the increasing adequacy with which geographical information has been made available, and the continual modification of place names under nationalistic influence, have all contributed to this newest edition of the Webster *Gazetteer*. Especially important in the determination of current Anglicized forms of geographical names have been the recommendations of the United States Geographic Board and the Royal Geographical Society. The decisions of these two official bodies have always been given the fullest weight, and have almost always been accepted. In the *Gazetteer* has been continued the practice of attaching cross references to entries in the Vocabulary of the Dictionary, containing interesting auxiliary information about important places. The compilation and editing of material in the *Gazetteer* has been under the direction of Dr. Everett E. Thompson of the Dictionary Staff.

The Pronouncing Biographical Dictionary

The growth and changes in the political and cultural life of all nations have during the same period introduced thousands of personal names, not only into the news of the day, but into the permanent historical record. Especially fruitful have been the world of political life, and the continued literary, scientific, and educational activities in all nations. It is the purpose of this new edition of the Webster *Pronouncing Biographical Dictionary* to continue the record of information about all important persons, both historical and living, who might be the subject of inquiry by consulters of the Dictionary. *The Biographical Dictionary* has continued and extended the practice of recording outstanding achievements of those persons who are included. In all pertinent cases there are mentioned titles of books, awards of prizes, scientific achievements, inventions, and other similar information. The compilation and editorial management of the *Biographical Dictionary* have been in charge of Dr. John P. Bethel of the Dictionary Staff.

Alphabetization

Every vocabulary entry (with certain minor exceptions stated below) is listed in its alphabetical order, either in the upper section or in the lower section of the page.

All noun phrases are treated alphabetically as main vocabulary entries:

An adjective and a noun: **black diamond, caustic soda.**
A noun and a noun: **beef tea, bargain and sale.**
A noun and a prepositional phrase: **center of curvature.**
A possessive noun and a noun: **Lloyd's numbers.**

Verb phrases (***break camp, bring about, clear the air, hang fire***), entered in italic bold-faced type, follow immediately after the simple verb. All phrases within a group are alphabetically arranged with reference to one another.

Phrases consisting of a preposition and a noun (***at hand, in hand***) are entered in italic bold-faced type in a paragraph immediately following the noun.

Word lists exemplifying formations made with prefixes, combining forms, etc. (**anti-, angio-**) are, in general, printed in small bold-faced type, and are arranged in narrow columns immediately following the prefix or combining form, etc. When, however, the prefix is so short (**be-, co-, un-**) that arrangement in lists would throw large numbers of words far out of their alphabetical order, the self-explanatory combinations made with these prefixes are placed in their alphabetical order, in the lower section of the page, with a cross reference to the pertinent definition of the prefix, etc. (**beblister, befurbelowed, bewhiskered**).

Abbreviations, Geographical Names, and Biographical Names have been arranged in separate alphabets in the Appendix.

The alphabetical guide words on each page are placed at the top, and are printed in clear, prominent type.

Words of Many Meanings

The analysis, separation, and arrangement of the definitions of words of many meanings have presented one of the major problems in editing the new Dictionary. Noah Webster in 1828 was the precursor, if not the actual originator of the "historical" method of arranging definitions. His exhaustive researches into etymology had for their primary purpose the determination of the earliest meaning of every word. Until this earliest meaning had been determined, he pointed out, meanings could not be arranged in intelligible order. Even with the limited resources at his command — lacking, as he was, the great accumulations of philological and etymological research that are available today, without accessible documents from the earlier literary periods, and without adequate dictionaries or glossaries for the earlier periods of all modern languages, especially English and French — his pioneering determined the correct principles and, in a large number of cases, the correct practice of semantic arrangement. The historical arrangement of the meanings of a word is, of course, neither purely chronological nor purely logical. Many modern English words which are descended from Anglo-Saxon had already developed numerous senses in the period before the Anglo-Saxon language was written down. The determination of the earliest meaning of a word of this kind must be based on the study of its etymology, and the arrangement of its developed meanings must be determined by inference. The comparative scarcity of documents in the vernacular between 700 A.D. and 1300 A.D. leaves the student without actual evidence concerning many developments. The lack of an exhaustive collection of citations from 1300 to 1500 imposes another handicap, although the exploration of selected printed books between 1500 and 1600, both by volunteer assistants and the professional staff of the *Oxford English Dictionary*, has lighted the way through this period. The historian of English semantics still awaits the publication of a more exhaustive selection of citations from this early modern English period. Although Du Cange's dictionary of medieval Latin has much material, an immense amount of work has yet to be done, both in the study of the relations of those meanings which he lists, and in the collection and publication of the greater mass of material which he did not explore. Similarly, the collections of citations in Godefroy's dictionary of Old French are of much assistance to the student who is tracing English words of Old French origin, but here again one encounters insuperable difficulties, because of the lack of any such digested body of evidence for French as that for English in the *Oxford Dictionary*. Nevertheless, although much remains to be discovered about the growth of the senses of English words, the body of information and the evidence now available make possible a far more adequate treatment than has hitherto been attainable.

In general the arrangement of meanings of words of many meanings in this Dictionary has been according to the following practice. The earliest meaning ascertainable is always first, whether it is literary, technical, historical, or obsolete. Meanings of later derivation are arranged in the order shown to be most probable by dated citations and semantic development. Literary meanings have usually, however, been separated from those technical meanings which carry an italic label at the beginning. Whenever these

A B C D E F G H I J K L M

literary meanings fall into two or more discernible large groups, each group is preceded by a roman number and a general definition. The first numbered group, of course, shows the history of meanings derived from the earliest ascertainable meaning. The second, and other numbered groups, show the development of meanings derived from the most fruitful secondary meanings. The technical senses are, except for the most urgent reasons, arranged in the alphabetical order of the initial labels. In some cases, several unimportant obsolete senses which are not in the line of development are grouped by themselves. Slang, Colloquial, Dialect, and Local senses are usually given in their historical position. For exemplifications of this practice, see in the Dictionary such words as BAR, *n.*, FAULT, *n.*, PERSON, *n.*, CLERK, *n.*, BODY, *n.*, BLOCK, *n.*, SET, *v.*

Word Lists

A new feature of this edition is the inclusion, in lists, of phrases (*color etcher*, *color grinder*) and of combinations (*color-free*, *color-maker*), and of words made from prefixes (*anti-*, *contra-*) and combining forms (*acro-*, *arterio-*). These lists contain many words and phrases attested by citations, but never before appearing in any dictionary. Such entries will show the existence of such words, the spelling, the capitalization, and the hyphenation. Words and phrases are not entered in these lists unless the meanings can be inferred from the definitions of the separate parts. Similar words and phrases having special senses that require definition are entered in the Vocabulary and defined.

Cross References

As part of the task of making accessible all related and auxiliary information in such a reference book as this Dictionary, the special editors and office editors have co-operated in extending the Webster method of cross-referencing from one definition or vocabulary entry to another. Many of the cross references, particularly those beginning with *See*, will enable the reader to find *essential* additional information; many, particularly those beginning with *Cf.*, will enable the reader to locate much *useful*, *interesting*, or *related* information. Some definitions (**double vision** = DIPLOPIA) consist of the "equal" sign (=) and the word where the full definition is given. Variant spellings and forms are entered in their alphabetical positions with a cross reference to the main spelling or form. Irregular plurals of nouns, irregular tenses and participial forms of verbs, irregular comparative and superlative forms of adjectives, and various inflectional forms of pronouns, are entered in their alphabetical positions with a reference to the main entry, where the word is treated systematically. Literary synonyms and antonyms are treated in groups with cross references from the entry of each word which is a member of the group. Botanical and zoological synonyms are entered with a reference to the most authentic name of the genus, family, etc., where the definition is given. In many instances, such as *bond*, *insurance*, etc., all information about the various kinds of bonds, or insurance, is presented systematically in one place, with references from the necessary alphabetical entries. The principles to be followed in verifying all the details in this complex system were drawn up by Mr. A. G. Baker, and have been carried out, under the supervision of Miss Ervina Foss, chiefly by Mrs. Dorothy Leonard Artin, Mrs. Ruth Gould Pike, and Miss Elizabeth H. Jackson.

Typography

The typography and the typographical arrangement of WEBSTER'S NEW INTERNATIONAL DICTIONARY, SECOND EDITION, have been determined after long study and many experiments. The final arrangement of matter on the page follows the general principle of the previous edition. All vocabulary entries that are accompanied by a definition (except rare obsolete words and foreign language quotations) are placed in the upper section of the page. In the lower section of the page are contained vocabulary entries which are no more than cross references to other entries, rare obsolete words with brief definitions, and foreign language quotations and proverbs. This perfecting of the method first used in the Edition of 1909 has brought into one alphabet, in the larger type, all vocabulary entries except a small number which will be consulted comparatively rarely, and at the same time has retained the advantage of saving space for the increased vocabulary through the more compact arrangement of the less important matter in the lower section.

Explanatory Notes

The Explanatory Notes, immediately preceding the Vocabulary, contain not only a full treatment of the details of typography, but complete information about the practical problems involved in the use of the Dictionary. Preceding the Notes is an Index, by means of which the dictionary user is enabled to find the solution for any difficulty he may encounter in interpreting the various conventions in the Vocabulary.

The type faces employed in the composition of this edition are in large part the standard faces of the Lanston Monotype Company. For the spelling of great numbers of words of foreign origin, and for the representation of the sounds of English and other languages in the pronunciation alphabet and in other phonetic characters, a large number of special type faces were designed by the Lanston Monotype Company, usually in consultation with the printing department of H. O. Houghton and Company and the business and editorial staffs of the G. & C. Merriam Company. The persons most intimately concerned in the selection, designing, and perfection of these type faces have been Dr. W. A. Neilson, Mr. A. G. Baker, Mr. R. C. Munroe, Dr. J. S. Kenyon, Dr. T. A. Knott, Mr. P. W. Carhart, and Mr. C. Howard Roberts of The Riverside Press.

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Especial acknowledgment is due The Riverside Press, particularly the proofreading department and Mr. C. Howard Roberts, for their close co-operation with the editorial staff of the Dictionary.

The Special Editors are listed on the following pages.

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Aeronautics: J. S. Ames (see *Physics*).

Agriculture: Howard Lawton Knight, B.S.
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Agricultural Engineering and Machinery: Robert William Trullinger, B.S., C.E., A.E.
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Contributor of articles to Department publications and to periodicals, and to the International Yearbook.

Animal Husbandry: Henry White Marston, B.S.A., M.S.
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Vicar of Four Oaks, Warwickshire; Examining Chaplain to the Bishop of Birmingham; External Lecturer in Theology to the Univ. of Birmingham; Select Preacher before the Univ. of Cambridge, 1934.
Author of: *The Causes of the Present Conflict of Ideals in the Church of England*; *The Gospel of Modernism*.

Angling: Ray Schrenkeisen.
Associate Editor, *Field and Stream* (magazine).

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Author of: *Chaucer and the Medieval Sciences*; etc.

Astronomy: Frank Bowers Littell, Ph.B., A.M., Sc.D.
Professor of Mathematics, retired, United States Navy; Head Astronomer, retired, United States Naval Observatory; Member of several U. S. eclipse expeditions.

Astrophysics: Heber Doust Curtis, A.B., A.M., Ph.D., Hon. Sc.D.
Director of the (Astronomical) Observatory of the Univ. of Michigan; formerly, Director of the Allegheny Observatory, and Astronomer, Lick Observatory.

Athletics: J. H. McCurdy (see *Sports*).

Australian terms: Ernest Rudolph Holme, O.B.E., M.A.
Professor of English Language, Univ. of Sydney.
Mr. Holme had as consultants:

J. deGay Brereton, B.A. (deceased).
Late Professor of English Literature, Univ. of Sydney, author, and authority on Australian wayfaring life.

H. M. Green, B.A., LL.B.
Librarian, Univ. of Sydney.
Author of the standard *Outline of Australian Literature*.

Automotive Engineering: C. B. Veal, B.S.M.E.
Research Manager, Society of Automotive Engineers; formerly, Professor and Head of the Department of Machine Design, Purdue Univ.

Aviation: J. S. Ames (see *Physics*).

Bacteriology: Victor Burke, A.B., Ph.D.
Professor of Bacteriology, Washington State College; Member of the Committee on Bacteriological Technique.

Banking: Luther Harr, B.S., A.M., Ph.D.
Professor of Finance, Wharton School of Finance and Commerce, Univ. of Pennsylvania.
Author of: *Branch Banking in England*; Coauthor of: *Banking Theory and Practice*.

Baseball, Basketball: See *Sports*.

Billiards: Willie F. Hoppe.
Former United States and International Billiard Champion.
Author of: *Thirty Years of Billiards*.

Biochemistry: P. E. Howe (see *Chemistry*).

Biology: J. A. Dawson (see *Zoology*) and **Norman Taylor** (see *Botany*).

Birds: G. M. Allen (see *Zoology*).

Bookbinding: E. W. Palmer.
President, Kingsport Press, Inc., Kingsport, Tennessee.
Author of: *A Glossary of Technical Terms used in Printing and Binding Trades*; *A Course in Bookbinding for Vocational Training*; etc.

Bookkeeping: See *Accounting*.

Botany: Norman Taylor.
Formerly, Curator, Brooklyn Botanic Garden; Assistant Curator, New York Botanical Garden.
Editor of: *The Garden Dictionary*, and formerly of *Torreya* and The *Journal of the International Garden Club*; Author of: *Guide to the Wild Flowers*; *The Science of Plant Life*; etc.
Under the general supervision of Mr. Taylor the editorial work in Botany was distributed as follows:

General Botany and Ornamental Horticulture: N. Taylor (see above).

Algae, Liverworts, and Mosses: Otto Emery Jennings, B.Sc., Ph.D., Sc.D.
Head of the Department of Botany and Director of Lake Laboratory, Univ. of Pittsburgh; Curator of Botany and Director of Education, Carnegie Museum.
Editor of: *Bryologist*; Author of: *Manual of Mosses of Western Pennsylvania*.
Dr. Jennings was assisted by:

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Associate Professor of Botany, Univ. of Pittsburgh.

Forestry: Raphael Zon, B.A., B.S., F.E.
Director, Lake Forest Experiment Station; Professor of Forestry, Univs. of Minnesota and Wisconsin; formerly, Editor in Chief, *Journal of Forestry*.

Fungi, Lichens, and Plant Pathology: Frederick de Forest Heald, B.S., M.S., Ph.D.
Professor of Plant Pathology, Washington State College.
Author of: *Manual of Plant Diseases*.

Grasses: Albert Spear Hitchcock, B.Sc., M.S., D.S.
Principal Botanist in Charge of Systematic Agrostology, U. S. Bureau of Plant Industry.

Paleobotany: C. Arthur Hollick, Ph.B., Ph.D. (deceased).
Late Paleobotanist of the New York Botanical Garden; Senior Geologist of the U. S. Geological Survey.

Plant Anatomy and Histology: R. H. Wetmore, B.Sc., A.M., Ph.D.
Associate Professor of Botany, Harvard Univ.

Brewing: Julian Levett Baker, F.I.C.
Vice-President of the Society of Chemical Industry and of the Institute of Brewing.
Editor of: *The Journal of the Institute of Brewing*; Author of: *The Brewing Industry*.

British Universities: William Allan Neilson (see *Scottish terms*).

Brushes: George A. Fernley, B.S. in Econ.
Secretary, American Brush Manufacturers' Association.

Card Games and Gambling: Robert Frederick Foster.
Formerly, Card Editor, The New York *Sun*; Author of many books on card games and indoor games and reviser of Hoyle.

Cartographic terms (in part): **James William McGuire.**
Cartographic Engineer, U. S. Coast and Geodetic Survey; Chief Cartographer and Technical Adviser of Confidential Commission Advisory to the President of the United States During the World War; Member of U. S. Geographic Board.
Author of: *Geographic Dictionary of the Virgin Islands*; etc.
See also *Physical Geography*.

Catholic Church: Patrick Joseph Healy, S.T.B., S.T.L., S.T.D.
Professor of Church History, Catholic Univ. of America.
Author of: *The Valerian Persecution*; *Historical Christianity and the Social Question*.

Celtic: Joseph Dunn, A.B., Ph.D.
Professor of Celtic Languages and Literatures, Catholic Univ. of America.
Author of: *A Grammar of the Portuguese Language*; Translator of: *The Ancient Irish Epic Tale of Táin Bó Cuailnge*; etc.

Ceramics: Charles Fergus Binns, D.Sc.
Director Emeritus of The New York State College of Ceramics; Past President of the American Ceramic Society; formerly connected with The Royal Porcelain Works, Worcester, England.
Author of: *The Story of the Potter*; *The Potter's Craft*; and many technical papers.

Chemistry: Austin McDowell Patterson, A.B., Ph.D.
Vice-President and Professor of Chemistry and Chairman of the Department, Antioch College; formerly, Editor of *Chemical Abstracts*.
Author of: *A German-English Dictionary for Chemists*; *A French-English Dictionary for Chemists*; etc.
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Member of the Editorial Staff of *Chemical Abstracts*, Ohio State Univ.
Under the general supervision of Dr. Patterson some of the editorial work in Chemistry was distributed as follows:

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Senior Biological Chemist, In Charge of Nutrition Investigations, Bureau of Animal Industry, U. S. Department of Agriculture; Ass't Editor, *Chemical Abstracts*.
Coauthor of: *Nutrition and Clinical Dietetics*.

Industrial Chemistry: Walter Lucius Badger, B.A., B.S., M.S.
Professor of Chemical Engineering, Univ. of Michigan.
Author of: *Elements of Chemical Engineering*; etc.

Physical Chemistry: George Lindenberg Clark, B.A., M.S., Ph.D., F.A.A.A.S., F.R.S.A., F.A.P.S.
Professor of Chemistry, Univ. of Illinois; Grasselli Medalist, 1932.
Author of: *Applied X-Rays*.

Chess: Percy Waldron Long.

Chinese terms: Kenneth Scott Latourette, B.S., D.D., B.A., M.A., Ph.D.
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Author of: *Development of China*; etc.

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Civil Engineering: Milo Smith Ketchum, B.S., C.E., Sc.D.
Dean of the College of Engineering and Director of the Engineering Experiment Station, Research Professor of Civil Engineering, Univ. of Illinois.
Author of: *Structural Engineers' Handbook; Design of Highway Bridges of Steel, Timber, and Concrete; Design of Steel Mill Buildings; Design of Mine Structures*; etc.; Coauthor of: *Surveying Manual.*

Classical Antiquities, etc.: **Sidney Norton Deane**, Ph.D.
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Clothing: E. S. Davis (see *Home Economics*).

Color terms: Isaac Hahn Godlove, B.S., A.M., Ph.D.
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Editor of: *Color Events.*

Commerce and Finance: Emory Richard Johnson, B.L., M.L., Ph.D., Sc.D.
Professor of Transportation and Commerce; Dean of the Wharton School of Finance and Commerce, Univ. of Pennsylvania, 1919–1933; formerly, Memher U. S. Isthmian Canal Commission; Special Commissioner on Panama Canal Traffic and Rates; Expert on Valuation of Railway Property for U. S. Census Bureau; etc.
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Author of: *The Economics of Money, Credit, and Banking; England Today; The Road to Revival.*
See also *Accounting, Banking, Economics, Transportation*, etc.

Confectionery: Walter C. Hughes.
General Counsel and Trade-Mark Counsel for the National Confectioners' Association of the United States.

Cookery: See *Home Economics.*

Craniometry and Craniology: C. Wissler (see *Anthropology*).

Cricket: H. Downing Jacobs, assisted by **Hubert H. Roe.**

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Author of numerous articles on the dance in periodicals, etc.

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Author of: *American Textbook of Prosthetic Dentistry.*

Dogs: Arthur Frederick Jones, Jr.
Assistant Editor, *American Kennel Gazette.*
American Correspondent, *The Dog World* (England).

Drama: George Pierce Baker, A.B., A.M., Litt.D., L.H.D., LL.D.
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Author of: *The Development of Shakespeare as a Dramatist; Dramatic Technique*; etc.

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Author of: *Bibel und Babel; Der Nomokanon Michaels von Malig*; etc.

Echinoderms: H. L. Clark (see *Zoology*).

Economics, Railroad Accounting, etc.: **Arthur Twining Hadley**, A.B., LL.D., Ph.D. (deceased).
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Author of: *Railroad Transportation, Its History and Laws; Economic Problems of Democracy*; etc.

Education: Charles Hubbard Judd, A.B., A.M., Ph.D., LL.D.
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Electrical Engineering: William Bennett Kouwenhoven, E.E., M.E., Dipl. Ing., Dr. Ing.
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Engineering: See *Civil, Electrical, Mechanical*, etc., *Engineering.*

Etymology: Harold H. Bender, Ph.D., Litt.D., Phil.L.D.
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Spanish and other Romance languages: **F. Courtney Tarr**, A.M., Ph.D.
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Tagalog and other languages of the Philippine Islands: **Frank R. Blake**, A.B., Ph.D.
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Fire Protection, Fire Apparatus: Robert S. Moulton, B.S.
Technical Secretary, National Fire Protection Association; Editor, *Quarterly Magazine*, National Fire Protection Association.

Fishes: E. W. Gudger, W. P. Hay (see *Zoology*).

Foods: See *Home Economics.*

Football: See *Sports.*

Forestry: R. Zon (see *Botany*).

Freemasonry: C. T. Converse, Longmeadow, Mass.

Fungi, etc.: **F. de F. Heald** (see *Botany*).

Furniture: Wallace Nutting, D.D.
Antiquarian, Lecturer, and Author.
Author of: *Furniture of the Pilgrim Century; Furniture Treasury* (3 vols.); *The States Beautiful*; etc.

Furs and Fur-Bearing Animals: Rudolph Martin Anderson, Ph.B., Ph.D.
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Author of: *Methods of Collecting and Preserving Vertebrate Animals*; etc.
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President, F. D. Burkholder, Ltd., Furriers, Ottawa; First President of the Furriers' Guild of Canada; Chairman of the International Convention of the Retail Manufacturing Furriers of America and the Furriers' Guild of Canada (1931).

Gambling: See *Card Games.*

Gems and Jewelry: George Frederick Kunz, A.M., Ph.D., Sc.D. (deceased).
Late Vice-President and Gem Expert, Tiffany and Company, New York; Research Curator of Precious Stones, American Museum of Natural History; Founder and Honorary President, Museum of the Peaceful Arts (now Museum of Science and Industry), New York City.
Author of: *Gems and Precious Stones of North America; The Curious Lore of Precious Stones; Magic of Jewels; The Ring*; etc.

Geography: See *Physical Geography.*

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Professor of Economic Geology, California Institute of Technology; Member National Academy of Sciences; Associate Editor, *Economic Geology*; formerly, Geologist of the U. S. Geological Survey.
Author of numerous official monographs on the geology of western mining districts.

Glass and Glass Manufacture: Ellsworth Ben Gore.
Chief of Sales Research and Statistics, Corning Glass Works, Corning, New York (in consultation with eight scientists and technicians of the same company).

Golf: Innis Brown, B.A
Managing Editor, *American Golfer*; formerly, Secretary to the Rules of Golf Committee of the U. S. Golf Association.
Author of: *Ready References to the Rules of Golf*; Coauthor of: *A Guide to Good Golf.*

Grammar: Alfred Dwight Sheffield, A.B., A.M.
Associate Professor of English, Wellesley College.
Author of: *Grammar and Thinking; Command of Sentence Patterns.*

Grasses: A. S. Hitchcock (see *Botany*).

Greek Antiquities, etc.: See *Classical Antiquities.*

Hatting: J. L. O'Brien.
General Manager, The Crofut & Knapp Company, Hatmakers, South Norwalk, Conn.

Heraldry: Oswald Barron, F.S.A.
Editor of sections relating to Genealogy and Armory in the Victoria County History Series.
Author of articles on Heraldry, etc., in the *Encyclopaedia Britannica.*

History and Government: Everett Kimball, A.B., A.M., Ph.D.
Professor of Government, Smith College.
Author of: *The National Government of the United States; State and Municipal Government in the United States; United States Government*; etc.; Coauthor of: *A Reference History of the World.*

Home Economics: Alice F. Blood, B.S., Ph.D.
Professor of Dietetics and Director of the School of Household Economics, Simmons College; Editor, Riverside Home Economics Series; Past President, American Home Economics Association.
Foods, Cookery, Dietetics, etc.: **Dr. Blood**, assisted by Miss Ula M. Dow (see below).
Clothing, Sewing, Laces, etc.: **Eleanor S. Davis**, A.B., S.B.
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Tea, Coffee, Spices: Ula M. Dow, S.B., A.M.
Professor of Household Economics, Simmons College.
Coauthor of: *Good Cooking.*

Horology: Paul Moore.
Executive Secretary, Horological Institute of America; formerly, Editor in Chief and, later, Director of the Division of Information, War Trade Board; Secretary of the Research Extension Division and Associate in The Research Information Service, National Research Council.

Horticulture: See *Agriculture, Botany.*

Hunting and Field Sports: Raymond Prunty Holland.
Vice-President, American Game Protective Association; Secretary and Treasurer, International Association of Game, Fish, and Conservation Commissioners.
Editor of: *Field and Stream*; Author of: *My Gun Dogs.*

Immunology: E. R. Long (see *Medicine*).

India: Ananda Kentish Coomaraswamy, D.Sc.
Fellow for Research in Indian, Persian, and Mohammedan Art, Boston Museum of Fine Arts.
Author of: *Rajput Painting; Buddha and the Gospel of Buddhism; The Dance of Siva; History of Indian and Indonesian Art; The Transformation of Nature in Art*; etc.

Industrial Chemistry: W. L. Badger (see *Chemistry*).

Insects: C. T. Brues (see *Zoology*).

Insurance: Solomon S. Huebner, B.L., M.L., Ph.D., Sc.D.
Professor of Insurance and Commerce, Wharton School of Finance and Commerce, Univ. of Pennsylvania; Dean and Director, American College of Life Underwriters.
Author of: *Marine Insurance; Property Insurance; Life Insurance*; etc.
Dr. Huebner was assisted by:
David McCahan, B.S. in Econ., M.A., Ph.D. (C.L.U.).
Assistant Professor of Insurance, Wharton School of Finance and Commerce, Univ. of Pennsylvania; Assistant Dean, American College of Life Underwriters.
Author of: *State Insurance*, and of numerous technical articles; Coauthor of: *Life Insurance as Investment.*

Japanese terms: K. Asakawa, B.Litt., Litt.D., Ph.D.
Research Associate in History, Yale Univ.
Author of: *The Early Institutional Life of Japan; The Documents of Iriki*; etc.

Jewelry: G. F. Kunz (see *Gems*).

Jewish Antiquities, Yiddish, etc.: **Ralph Marcus**, B.A., M.A., Ph.D.
Assistant Professor of Bible and Hellenistic Judaism, Jewish Institute of Religion, New York City; Lecturer in Semitic Languages, Columhia Univ.

Labor: R. H. Lansburgh, B.S. in Econ., M.A.
Industrial Advisor, First National Bank, Detroit, Michigan; formerly, Professor of Industry, Wharton School of Finance and Commerce, Univ. of Pennsylvania.

Land Transportation: G. G. Huebner (see *Transportation*).

Languages: Harold H. Bender (see *Philology and Linguistics; Etymology*).

Law: Roscoe Pound, A.B., A.M., Ph.D., LL.M., LL.D.
Dean of the Law School, Harvard Univ.; formerly, Commissioner of Appeals of the Supreme Court of Nebraska.
Author of: *The Spirit of the Common Law; Introduction to the Philosophy of Law; Interpretations of Legal History; Law and Morals; Criminal Justice in America.*

Library terms: Hiller Crowell Wellman, A.B.
Librarian, City Library Association, Springfield, Massachusetts; Past, President, American Library Association.

Linguistics: Harold H. Bender (see *Philology and Linguistics; Etymology*).

Locks and Locksmithing: Charles Abel Berry.
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Magic: John Mulholland.
Magician and Lecturer on Magic.
Editor of: *The Sphinx*, a magazine for magicians; Author of: *Magic in the Making; Quicker than the Eye*; etc.

Mammals: G. M. Allen (see *Zoology*).

Manège: H. W. Marston (see *Agriculture*).

Marine Transportation: R. L. Kramer (see *Transportation*).

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Professor of Mathematics, Johns Hopkins Univ.
Author of: *Vector Analysis and the Theory of Relativity; Theoretical Mechanics*; etc.

Measures: See *Weights and Measures.*

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Author of various technical articles and papers.

Medicine: Esmond Ray Long, A.B., Ph.D., M.D.
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Author of: *The Chemistry of Tuberculosis; A History of Pathology.*

Medieval Occultism, including **Alchemy, Astrology,** etc.: **W. C. Curry** (see *Astrology*).

Metallurgy: Allison Butts, A.B., S.B.
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Author of: *A Textbook of Metallurgical Calculations*; Coauthor of: *Engineering Metallurgy.*

Meteorology: William Jackson Humphreys, A.B., C.E., Ph.D.
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Editor of: *Monthly Weather Review*; Author of: *Physics of the Air; Fogs and Clouds; Weather Proverbs and Paradoxes; Rain Making*; etc.

Military terms: Alexander Wheeler Chilton, Lieutenant Colonel, United States Army; Grad., United States Military Academy; A.M.
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Coauthor of: *History of Europe*; etc.

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Mineralogy: Herbert P. Whitlock, C.E.
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Author of: *The Story of the Minerals*; etc.

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Mormon Church: James Edward Talmage, B.S., D.Sc., Ph.D., LL.D., F.R.S.G.S., F.R.M.S., F.R.S.E., F.G.S., F.A.A.A.S. (deceased).
Formerly, President and Professor of Geology, Univ. of Utah; one of the Twelve Apostles of the Church of Jesus Christ of Latter-day Saints.
Author of: *The Philosophy of Mormonism; The Vitality of Mormonism*; etc.

Motion-Picture Colloquialisms and Slang: Reginald Edgar Lyons.
Cameraman with Vitagraph, Fox, Warner Brothers, Metro-Goldwyn-Mayer, Universal, and Independent Producers; Officer in charge of War Photography, in the 79th Division, A.E.F.

Motion-Picture Technique: See *Photography.*

Music: Karl Wilson Gehrkens, A.B., A.M.
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Nautical terms, Yachting, etc.: **William P. Stephens,** B.S., M.S.
Formerly, Editor of *Lloyd's Register of American Yachts*; Yachting and Canoeing Editor, *Field and Stream* (magazine).
Author of: *Canoe and Boat Building for Amateurs; Supplements to Small Yachts*; etc.

Naval terms: George Frederick Hussey, Jr., Lieutenant-Commander, United States Navy; Grad., United States Naval Academy
Proof Officer, Naval Proving Ground, Dahlgren, Virginia.

Newspapers: H. L. Pangborn (deceased).

Numismatics: Sydney P. Noe, B.Sc., M.A.
Secretary, Librarian, and Editor of the Publications of the American Numismatic Society.
Author of: *The Coinage of Metapontum; A Bibliography of Greek Coin Hoards*; etc.

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Chief Physicist, Research Laboratories, Eastman Kodak Company.
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Physicist, Research Laboratories, Eastman Kodak Company.

Optics: J. S. Ames (see *Physics*).

Ore Dressing: See *Mining.*

Orthodox Church: See *Eastern Church.*

Painting: G. W. Eggers (see *Art*).

Paints and Varnishes: George Gilbert Sward, B.S., M.S.
Assistant to the Director, Institute of Paint and Varnish Research, Washington, D. C.
Coauthor of numerous technical articles.

Paleobotany: C. Arthur Hollick (see *Botany*).

Paleontology: P. E. Raymond (see *Zoology*).

Paper and Papermaking: Clarence Jay West, B.S., Ph.D.
Research Information Service, National Research Council; Assistant Editor, *Chemical Abstracts*; formerly, Associate Editor, *International Critical Tables.*
Author of: *Classification and Definitions of Paper; Bibliography of Papermaking*; etc.

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A B C D E F G H I J K L M

A GUIDE TO PRONUNCIATION

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KEY TO THE SYMBOLS USED IN THE RESPELLING FOR PRONUNCIATION

The figures refer to sections in this Guide where a full treatment of the sound is given.

ā, as in āle, fāte, lā'bor, chā'os, chām'ber, pā'tri·ar'chal (§ 77).
ā̇, " " chā̇·ot'ic, fā̇·tal'i·ty, grā̇·da'tion, vā̇·ca'tion, cor'dā̇te (§ 88).
â, " " câre, shâre, pâr'ent, com·pâre', plow'shâre', beâr, âir (§§ 78, 79).
ă, " " ădd, ăm, făt, răn'dom, ăc·cept', re'ăc·tiv'i·ty (§ 80).
ă, " " ăc·count', in'fănt, guid'ănce, val'iănt, hus'bănd, mad'ăm (§ 91).
ä, " " ärm, fär, fä'ther, mär'tyr, äh, älms, ärt, pälm (§§ 81, 82).
ȧ, " " ȧsk, grȧss, dȧnce, stȧff, pȧth (§ 83).
ȧ, " " so'fȧ, i·de'ȧ, ȧ·bound', di'ȧ·dem (§ 92).
b, " " baby, be, bit, bob, but (§ 97).
ch, " " chair, much; also for tch, as in match, etching; for ti as in question; for te as in righteous (§ 104).
d, as in day, den, din, do, dun, did, added; also for ed as in robbed (§ 111).
dū: for du as in ver'dure; for deu as in gran'deur (§§ 111, 249).
ē, as in ēve, mēte, se·rēne', hē'li·om'e·ter (§ 115).
ḙ, " " hḙre, fḙar, drḙar'y, wḙird, deer (dḙr) (§ 116).
ē̇, " " ē̇·vent', dē̇·pend', crē̇·ate', de·lin'ē̇·ate, sē̇·rene' (§ 125).
ĕ, " " ĕnd, mĕt, ĕx·cuse', ĕf·face', con'dĕm·na'tion (§ 117).
ĕ, " " si'lĕnt, mo'mĕnt, pru'dĕnce, pen'i·tĕnt, nov'ĕl (§ 127).
ẽ, " " mak'ẽr, speak'ẽr, cin'dẽr, pẽr·vert', in'fẽr·ence (§§ 121, 126).
f, " " fill, feel; for ph as in philosophy, triumph; for gh as in laugh (§ 137).
g (always "hard"), as in go, begin, great, anger; also for gu as in guard; for gue as in plague; for gh as in ghost (§ 138).
gz: for x as in ex·ist', ex·act', ex·am'ple (§ 259).
h, as in hat, hen, hide, hot, hurt, ahead (§ 149).
hw: for wh as in what, why, where (§ 258).
ī, as in īce, sīght, in·spīre', jus'ti·fī'a·ble, ī·de'a, bī·ol'o·gy (§ 152).
ĭ, " " ĭll, ad·mĭt', hab'ĭt, be·gin'ning, pity (pĭt'ĭ) (§§ 154, 155).
ĭ, " " char'ĭ·ty, pos'sĭ·ble, prin'cĭ·ple, pol'ĭ·cy, dĭ·rect', A'prĭl (§ 155).
j, " " joke, jolly; also for "soft" g, as in gem, giant; for gi and ge as in religion, pigeon; for di as in soldier; for dg(e), as in edge, knowledge (§ 161).
k, as in keep, kick; also for "hard" ch, as in chorus, epoch; for "hard" c, as in cube; for ck, as in pack; for qu as in conquer, coquette; for que as in pique (§ 164).
ᴋ (small capital): for ch as in German ich, ach, etc., Scottish loch (§ 109).
ks: for x as in vex, ex'ecute, perplex, dextrous (§ 259).
kw: for qu as in queen, quit, quality (§ 210).
l, as in late, leg, lip, lot, lull, holly (§ 166).
m, as in man, men, mine, mob, mud, hum, hammer (§ 171).
n (the ordinary sound), as in no, man, many, manner; also for gn as in sign (§ 174).
ɴ (small capital): without sound of its own indicates the nasal tone (as in French or Portuguese) of the preceding vowel, as in bon (bôɴ), ensemble (äɴ'säɴ'bl') (§§ 95, 272).
ng, as in sing, long, sing'er; also for ngue, as in tongue; for n before the sound of k or "hard" g, as in bank, junction, lin'ger, sin'gle, canker (§§ 177).
ō, as in ōld, nōte, rōw, bōld, ō'ver, he'rō, ver'ti·gō, cal'i·cō (§ 180).
ō̇, as in ō̇·bey', tō̇·bac'co, a·nat'ō̇·my, prō̇·pose' (§ 190).
ô, " " ôrb, lôrd, ôr·dain'; law (lô), bought (bôt), caught (kôt), all (ôl) (§ 182).
ŏ, " " ŏdd, nŏt, tŏr'rid, fŏr'est, pŏs·ter'ity (§§ 184 f).
ŏ, " " sŏft, dŏg, clŏth, lŏss, cŏst (§ 185).
ŏ, " " cŏn·nect', ŏc·cur', co'lŏn, cŏm·bine' (§ 191).
oi, " " oil, nois'y, a·void', re·joice', em·broid'er·y, goi'ter (§ 197).
o͞o, " " fo͞od, mo͞on, fo͞ol, no͞on; rude (ro͞od), ru'mor (ro͞o'mẽr) (§ 199).
o͝o, " " fo͝ot, wo͝ol, bo͝ok, go͝od; put (po͝ot), pull (po͝ol) (§ 200).
ou, " " out, thou, de·vour' (§ 202).
p, " " papa, pen, pin, pop, put (§ 205).
r, " " rap, red, rip, rod, rule, horrid (§§ 211 f); also for rh as in rhizopod, rhododendron, rhomboid (§ 215).
s (always voiceless, or "sharp"), as in so, this, haste; also for "soft" c as in cell, vice; for sc as in scene, science; for ss as in hiss (§ 218).
sh, as in she, ship, shop; also for ch as in machine, chaise, chandelier; for ce as in ocean; for ci as in social; for sci as in conscious; for s as in sure; for se as in nauseous; for si as in pension; for ss as in issue; for ssi as in passion; for ti as in nation (§§ 227 f).
t, as in time, talk; also for ed as in baked, crossed, capped; for th as in thyme, Thomas (§ 230).
th (voiced): for th as in then, though, this, smooth, breathe (§ 233).
th (voiceless), as in thin, through, wealth, worth, breadth, width (§ 233).
tū: for tu as in na'ture, cul'ture, ple'ture, ac'tuate (§ 249).
ū, as in cūbe, pūre, mūte, tūne, lūte, dū'ty, hū'man (§§ 240–242 (5)).
ū̇, " " ū̇·nite', for'mū̇·late, mū̇·si'cian, hū̇·mane' (§ 249).
û, " " ûrn, fûrl, con·cûr'; her (hûr), fern (fûrn), fir (fûr), (§§ 245, 120); for Ger. ö, oe, as in schön (shûn), Goe'the (gû'tĕ), kön'nen (kûn-) (§ 193); for Fr. eu, as in jeu (zhû), seul (sûl) (§ 136).
ŭ, as in ŭp, tŭb, stŭd'y, ŭn'der, ŭn·do' (§ 244).
ŭ, " " cir'cŭs, cau'cŭs, dā'tŭm, cir'cŭm·stance, de'mon (-mŭn), na'tion (-shŭn) (§ 250).
ü: for German ü, as in grün, Sün'de; for French u, as in menu (mẽ·nü') (§ 247).
v, as in van, vent, vile, vote, revoke, revive (§ 254); also for f as in of (§ 71).
w, " " want, win, weed, wood (§ 255); also for u as in persuade (-swād) or o as in choir (kwīr).
y, as in yet, yard, yellow, beyond (§ 264); also for i as in union (-yŭn).
z, " " zone, haze; also for voiced ("soft") s, as in is, lives, wise, music, ears, figs (§ 265); for x as in Xenophon, xylography (§ 259).
zh: for z as in azure; for zi as in glazier, brazier; for s as in pleasure, usual; for si as in vision; for ssi as in abscission; for g as in rouge, genre (§ 266).
' as in pardon (pär'd'n), eaten (ēt''n), evil (ē'v'l) indicates that the following consonant is syllabic (§ 59, ¶ 7 ff), or, occasionally, unusual consonant combinations, as kn in knecht (k'nĕᴋt) (§ 128).

References. Numbers following the respelling for pronunciation of some words in the vocabulary refer to sections in this Guide.
Accents and Hyphens. The principal accent is indicated by a heavy mark ('), and the secondary accent by a lighter mark ('), at the end of the syllable (§ 62). Syllabic division is indicated by a centered period except where this is replaced by an accent mark, or by a hyphen used to join the members of words written or printed with a hyphen.

THE ALPHABET OF THE INTERNATIONAL PHONETIC ASSOCIATION (IPA)

The following symbols have each the sound values shown in the key words. **The IPA symbols and words respelled with them are in square brackets [ ].**

CONSONANTS

[p] in peep	[ɡ] in gig	[s] in cease	[r] in rear
[b] " bib	[ŋ] " sing	[z] " zones	[l] " lull
[m] " maim	[θ] " ether	[ʃ] " mission	[h] " hail
[t] " toot	[ð] " either	[ʒ] " vision	[w] " wail
[d] " deed	[f] " fife	[tʃ] " church	[hw] " whale
[n] " noon	[v] " valve	[dʒ] " judge	[j] " you
[k] " cook			

Note: For convenience in printing, the symbol [g] may be substituted for [ɡ].

VOWELS

[i] in beet
[ɪ] " it
[e] " chaotic
[eɪ] " cave
[ɛ] " set
[æ] " sat
[ɑ] " father
[a] " ask, as often pronounced in America (between [æ] and [ɑ]. See § 83)
[ɔ] " all, horse
[ɒ] " sorry, as pronounced in England and often in America (between [ɑ] and [ɔ])
[o] in notation
[oʊ] " go
[ʊ] " pull
[u] " pool
[ʌ] " sun (used only in stressed syllables)
[ə] " sofa (only in unstressed syllables)
[ɜ] " bird as pronounced in Southern England and parts of Eastern and Southern America (only in stressed syllables)
[ɝ] in bird as pronounced by the majority of Americans (only in stressed syllables)
[ɚ] " better as pronounced by the majority of Americans (only in unstressed syllables)

Note. [ɝ] is not a symbol of the IPA, which at present has no unambiguous symbol for this sound.

DIPHTHONGS

[aɪ] in ice [aʊ] in house [ɔɪ] in boy
[ɪu] " mute: the symbols [ju] are used when the first element is [j] as in use, instead of [ɪ]
Note: ([eɪ] and [oʊ], given above, are also diphthongs, the usual sounds of "long *a*" and "long *o*" (see §§ 77, 180).

NON-ENGLISH CONSONANTS

[ç] = ch in German ich and Scotch heich "high" [hiç], the voiceless palatal fricative (§ 43(9))
[x] = ch in G. ach and Sc. loch [lox], the voiceless velar fricative (§ 43 (10))

NON-ENGLISH VOWELS

[y] in French pur, German fühlen, — the high-front-round vowel (see §§ 31 f., 34)
[ø] " F. creuse, G. Goethe, — the mid-front-round vowel
[œ] " F. seul, G. können, — the low-front-round vowel

The symbols [l̩], [m̩], [n̩], [r̩] represent l, m, n, and r sounds that form syllables either alone or with non-syllabic sounds; as [mɛt'l̩, bæt'l̩d, kæz'm̩, kæz'm̩z, fæt'n̩, fæt'n̩d, bɛt'r̩, bɛt'r̩d].

Other symbols are explained when used.

The colon [ː] after a symbol indicates that its sound is long in duration as compared with that of the unmarked symbol. The raised period [ˑ] may be used for intermediate length.

The sign [˔] after a vowel symbol (as [ɛ˔]) indicates a pronunciation of it with slightly raised tongue; [˕] (as [ɛ˕]), with slightly lowered tongue; [+] (as [o+]), with slightly advanced tongue; and [−] (as [e−]), with slightly retracted tongue.

Accent is indicated, as elsewhere in this dictionary, by ' for primary and ' for secondary, placed after the accented syllable.

tion (Rule IV), **inva·lid, no·ti·fy, no·ti·fi·ça·tion, ro·ta·to·ry, pla·guy, pla·gui·ly, ro·guish,** etc., except as follows:

1. When the preceding vowel is short and under an accent the consonant is carried back with it; as **hăb′it, habĭt′ual, prŏph′et, prophĕt′ic, lĭv′id, livĭd′ity, a·căd′emy, ăc′adĕm′ic, admŏn′ish, bọs′om, wọm′an, pŭn′ish.** — For **vi′sion, văl′iant,** etc., see Rule IV, A, 2, and B, 3.

2. In a prefix, a short vowel though unaccented takes the following consonant; as, **ĭm·ăgine, ăb·ăctor, in·augu·rate, ĕn·ămor, dĭs·ärm, mis·anthropy.** (Rule V)

3. The unaccented vowel **ŭ** or an equivalent, and sometimes one of the other short or obscure vowels (ĕ, ĭ, ŏ, *ă*, *ĕ*, ŏ) especially in an unaccented root syllahle, may take the following consonant; as, **visiȯn·ary** (Rule V., 1), **cưstȯm·ary, symptȯm·atology, systĕm·atic, muskĕt·eer, visĭt·ation, Mennŏn′ite,** etc.

4. A long vowel may take the following consonant according to Rules IV, V; as, **āl·ien, māk·er,** etc.

Rule VII. When two or more consonants, which may he used together to hegin a syllable, come hetween two sounded vowels; —

A. All may he joined to the FOLLOWING vowel: —

1. When the preceding vowel is long and accented, or is capahle of ending an unaccented syllable; as, **enā′bling, Hē′brew, rṳ′bric, cȳ′clone, sā′cred, ī′dler, hȳ′dra, trī′fler, bū′gler, ē′gress, pēo′ple, A′pril, prē′script, hā′tred, neū′tral, inte·gral, terri·bly, fee′ble, sā′bre, ō′chre, a′bier.**

2. When the following vowel is in an accented syllahle; as, **o·blige′, vi·bra′tion, cy·clop′ic, a·chro′matism, a·cros′tic, hy·drau′lic, re·flect′, re·frain′, ana·glyph′ic, emi·gra′tion, re·ple′tion, e·qua′tion, re·proof′, de·scrip′tion, re·spect′, be·stride′, be·stow′al, be·twixt′.**

B. ONE of them may be joined to the PRECEDING vowel: —

1. When this vowel is short; as, **tăb·let, ăg·let, ăs·thenic, ăph·logis·tic, ĕq·uity, lĭq·uid, jăs·per, ăs·tral, vĕs·tige, ĕs·teem, illŭs·tration, regĭs·tration, ŏb·lation, nĕc·rological, prŏc·lamation, ăch·ro·matic, mĕd·ley, ăt·las, rĕs·cue, mŭs·ket, dĕs·pot·ism, ĕs·pecial, ăb·rupt, săc·rament, pĕt·rify, omnĭs·cient.** — For **spĕ·cial, vĭ·sion,** etc., see Rule IV, A, 2. — For **băgn·io, serăgl·io,** etc., see Rule IX.

EXCEPTIONS. **Trou′ble, dou′ble,** etc.

2. When the consonants are **st, str,** or **sp,** especially if the preceding or following syllahle is under an accent; as, **mas′ter, empāis′tic, aus·tere′, aus′tral, pās′try, oys′ter, aus′cultation, aus·pi′cious, acous′tics, Lancas·tē̤′rian.** See **C.,** helow.

C. COMBINATIONS like **st,** which are capahle of ending as well as of heginning a syllahle, may he joined to the PRECEDING vowel, Rule V; as, **hāst·ed, wāst·ing, hast·y, hast·ily, ēast·ern, lȧst·ed, cōast·er, pōst·age, wȧsp·ish, grȧsp·er, ȧsk·er.**

Rule VIII. When two or more consonants, not capahle of together heginning a syllable, come hetween two sounded vowels, one or more, but not all of them, are joined to the preceding vowel, whether this vowel be long or short; as, **an·gel, cam·bric, oc·tave, sym·bol, mort·gage, in·jury, com·punc·tion, con·ver·sation, ar·chitec·ture, con·vul·sive, con·temp·tible, in·ciden·tal, trium·phant, diph·thong, for·mality, speck·le, pick·le, buck·le, this·tle, han·dle, spec·tre.**

EXCEPTION. This Rule gives way to Rule V, when the derivative retains the spelling and accentuation together with meaning of the root or the original word; as, **bank′er, pound′ed, com′pass·es, dress′es, add′ing, distill′er, conscrĭpt′ing, conflict′ing, nôrth′ẽrn·ẽr, tĕmpt′ed, tĕll′er, danc′er, chang′ing.**

NOTE. This Rule is particularly exemplified when a consonant is doubled, as the syllabic division is then usually made hetween these two letters; as, **dab·ble, stab·bing, dif·fer, ruf·fian, metal·lic, excel·ling, expel·lable, distil·lation, rebel·lion, hal·liard, bril·liant, sur·veil·lance, ban·ner, dap·per, bar·ren, pas·sion, at·tack, diz·zy, bat·tle.** — Cf. Rule II, Exc.

Rule IX. Certain letters or comhinations in foreign words, into which the sound of consonant y enters, are kept in the same syllahle; as, **gl** (= **ly**) in **serăgl·io, imbrō·glio; gn** (= **ny**) in **băgn·io, cō·gnac,** etc. — For **ll,** see Rule VIII., NOTE.

Rule X. In writing or print no syllahle is separahle which does not include a vowel. Thus **chasm, hour, prism, James's,** etc., are treated as monosyllahles.

VIII. SYNOPSIS OF WORDS DIFFERENTLY PRONOUNCED BY DIFFERENT ORTHOEPISTS

§ 277. This Synopsis is a complete revision of that appearing in the *New International Dictionary.* Many words now of less interest have been replaced by others, the new list totaling ahout 1100 words. The aim of the synopsis is not simply to gratify curiosity, hut mainly to give information ahout words — especially important words — whose present pronunciation is a matter of douht or controversy. In some instances where the Webster pronunciation is at variance with the consensus of the other dictionaries cited, it is to he understood that systematic investigation among a wide group of distinguished writers, educators, and scholars, both in America and England, has hrought to the editors convincing evidence of the prevalence of the Wehster pronunciation.

Of the dictionaries here cited, in addition to Webster, four — the *Oxford English Dictionary,* the *Shorter Oxford English Dictionary,* Jones's *English Pronouncing Dictionary,* and Wyld's *Universal English Dictionary* — are English, and four — the *Century, New Century, Funk and Wagnalls,* and *Hempl* — are American. The *Shorter Oxford* and the *New Century* are cited only in cases where they differ from the *Oxford* and the *Century,* respectively. In the table the pronunciations given in the column under the caption *Webster* are those of the present edition, WEBSTER'S NEW INTERNATIONAL DICTIONARY, SECOND EDITION.

The monumental *Oxford English Dictionary* originated in a resolution of the English Philological Society, passed in 1857, hy which it was proposed that materials should he collected for a new English dictionary. From that time a vast amount of material was accumulated through the efforts of several hundred voluntary readers hoth in England and America. In 1879 the preparation of the vocahulary in its present form was hegun by Dr. (afterwards Sir) James A. H. Murray, who was assisted in the editorship of the later volumes hy Dr. Henry Bradley, Professor (now Sir) William A. Craigie, and Dr. C. T. Onions. The last of the ten volumes was puhlished in 1928, and a Supplement, with Introduction and Bibliography, in 1933. The pronunciations given in this work reflect in general the cultivated usage of the larger part of England.

The *Shorter Oxford English Dictionary* is a condensation, in two volumes, of the larger *Oxford,* prepared hy William Little, H. W. Fowler, and J. Coulson, and revised and edited by Dr. C. T. Onions (Oxford, 1933). In not a few instances the pronunciations in this work are recent revisions of those given in the larger *Oxford.* In these cases the pronunciation, preceded by *S.O.,* is given in the same column with the larger *Oxford.*

An English Pronouncing Dictionary, prepared hy Professor Daniel Jones, of University College, London, represents the colloquial pronunciation of a definite class of people, being "that most usually heard in everyday speech in the families of Southern English persons whose men-folk have been educated at the great public boarding-schools," and "also used by a considerable proportion of those who do not come from the South of England, hut who have been educated at these schools." The author specifically disclaims the intention of setting up a standard pronunciation. The edition used is that of 1924.

The *Universal Dictionary of the English Language,* hy Professor Henry Cecil Wyld, of Oxford University, appeared in 1932. It gives the pronunciation of what the author designates (without precise definition) as "Received Standard English," the pronunciations indicated heing "those current in good society."

Of the American works, the *Century Dictionary* was prepared under the superintendence of Dr. William Dwight Whitney, and since its appearance in 1891 has been held in high esteem. The edition used is that of 1911.

The *New Century Dictionary* is a two-volume work hased on the *Century.* The pronunciations in this work have heen revised with care under the editorship of H. G. Emery and K. G. Brewster (N.Y., 1931). Whenever a *New Century* pronunciation differs from that of the *Century,* the pronunciation, preceded by *N.C.,* is given in the same column with the *Century.*

Funk and Wagnalls' *"New Standard" Dictionary* appeared in 1913. The spelling and pronunciation in this work were done under the editorship of Dr. Francis A. March. The edition quoted is that of 1931.

The *International French-English and English-French Dictionary,* hy Professor Paul Passy of the University of Paris (Editorial Critic of French Pronunciations) and Professor George Hempl, of the University of Michigan (Editorial Critic of English Pronunciations), under the general editorship of Robert Morris Pierce, was puhlished in 1904. The pronunciations heing here cited only from the English-French part, this work is referred to briefly as *Hempl.*

It is intended to represent as exactly as possible the pronunciation given hy each dictionary for the words here included. This is necessarily done hy the use of Wehster symhols, that Wehster symhol in each instance heing used which most nearly represents the same sound as that of the corresponding symhol in the dictionary cited. When a word is respelled with one or more symbols enclosed in parentheses ( ), two pronunciations are meant, one with, and the other without, the sound of the enclosed symbol. Thus **nā′sh(*ŭ*)n** means hoth **nā′sh*ŭ*n** and **nā′sh′n.** When pronunciations from Jones's dictionary are represented with a final **-(r)** thus enclosed, the pronunciation with the sound of **r** is that which usually occurs when a word heginning with a vowel immediately follows; and the pronunciation without the sound of **r** is that which occurs hefore a consonant or a pause. The other dictionaries in this list do not express this distinction. In cases where not all the pronunciations given in Jones's dictionary are here recorded, a plus sign (+) is added to show that he also gives one or more other pronunciations, which are not deemed to have an important hearing on the points at issue in the particular case.

The accent of the words is marked (with the two Wehster accent marks) as it is shown in each dictionary. Likewise, the syllable division is that of each dictionary whenever it is indicated in that work; when it is not indicated, the division is made in accord with the practice followed in Webster.

The groups **ia, ie,** etc., as in **bestial, convenient,** are not divided in the pronunciations of the *Century* and the *New Century,* nor is it there explained whether the **i** is vocalic or consonantal. They are therefore printed as there given. In such groups the *Oxford* explains that both pronunciations are intended; the pronunciation of these in the *Oxford* is given here accordingly (**bĕs′ tĭ·*ă*l; -ty*ă*l**).

The intentionally amhiguous symbol (ɑ) used hy the *Oxford* and the *Shorter Oxford* in words like **ask** is here represented by the two symhols ä and ă, in accordance with the statement in the *Oxford* that the vowel is "variously identified by different speakers with *a* in *man* and *a* in *father.*"

A	WEBSTER	OXF. E. D.	JONES	WYLD	CENTURY	F. & W.	HEMPL
abdomen	ăh·dō′mĕn; ăh′dŏ·mĕn	ăb·dō′mĕn	ăb·dō′mĕn; -mĭn; -mĕn; ăh′dŭ·mĕn	ăb′dŭ·mĕn	ăh·dō′mĕn; ăh′dŏ·mĕn	ăh·dō′mĕn; ăh′dŏ·mĕn	ăb·dō′mĕn
accent, *v.*	ăk·sĕnt′; ăk′sĕnt	ăk·sĕnt′	ăk·sĕnt′; ȧk-	ăk·sĕnt′	ăk·sĕnt′	ăk·sĕnt′	ăk·sĕnt′
acetic	ȧ·sē′tĭk	ȧ·sē′tĭk; ȧ·sĕt′ĭk	ȧ·sē′tĭk; ă-; -sĕt′ĭk	ȧ·sē′tĭk	ă·sĕt′ĭk; ă·sē′tĭk *N. C.* ă·sē′tĭk; ă·sĕt′ĭk	ȧ·sĕt′ĭk; ȧ·sē′tĭk	ȧ·sĕt′ĭk
acoustic	ȧ·kōōs′tĭk; ȧ·kous′-	ȧ·kōōs′tĭk; ȧ·kous′-	ȧ·kous′tĭk; ȧ·kōōs′tĭk	ȧ·kous′tĭk	ȧ·kōōs′tĭk; ȧ·kous′-	ȧ·kōōs′tĭk; ȧ·kous′-	ȧ·kous′tĭk
actual	ăk′tṳ·ȧl	ăk′tū·ȧl	ăk′tū·ȧl; -chŏŏ·ȧl; +	ăk′tū·ȧl; -chŏŏ·ȧl	ăk′tṳ·ȧl	ăk′chŏŏ·ȧl; -tū·ȧl	ăk′chŏŏ·ȧl
addict, *n.*	ăd′ĭkt	ăd′ĭkt	. . . .	ăd′ĭkt	. . . . *N. C.* ȧ·dĭkt′	ă·dĭkt′	. . . .
address, *n.*	ȧ·drĕs′; ăd′rĕs	ȧ·drĕs′	ȧ·drĕs′	ȧ·drĕs′	ȧ·drĕs′	ă·drĕs′	ȧ·drĕs′
adept, *n.*	ăd′ĕpt; ȧ·dĕpt′	ȧ·dĕpt′	ăd′ĕpt; ȧ·dĕpt′; ă-	ȧ·dĕpt′; ăd′ĕpt	ȧ·dĕpt′	ȧ·dĕpt′	ȧ·dĕpt′
Adonis	ȧ·dō′nĭs; ȧ·dŏn′ĭs	ȧ·dō′nĭs	ȧ·dō′nĭs	ȧ·dō′nĭs	ȧ·dō′nĭs	ȧ·dō′nĭs	. . . .
adore	ȧ·dōr′	ȧ·dōr′	ȧ·dô(r)′; ȧ·dôẽ(r)′	ȧ·dô′	ȧ·dō′	ȧ·dōr′	ȧ·dōr′
adult	ȧ·dŭlt′; ăd′ŭlt	ȧ·dŭlt′	ȧ·dŭlt′; ăd′ŭlt	ȧ·dŭlt′	ȧ·dŭlt′	ȧ·dŭlt′	ȧ·dŭlt′
adumbrate	ăd·ŭm′brāt; ăd′ŭm-	ȧ·dŭm′hrāt	ăd′ŭm·brāt	ăd′ŭm·hrāt	ăd·ŭm′brāt	ăd·ŭm′hrāt	ȧ·dŭm′brāt
advance	ȧd·vȧns′; 83	ȧd·väns′; -văns′	ȧd·väns′	ȧd·väns′	ȧd·vȧns′	ăd·vȧns′	ăd·vȧns′
advantage	ȧd·vȧn′tĭj; 83	ȧd·vän′tĭj; -văn′-	ȧd·vän′tĭj	ȧd·vän′tĭj	ȧd·vȧn′tāj	ăd·vȧn′tĭj	ăd·vȧn′tĭj
adventure	ȧd·vĕn′tṳr	ȧd·vĕn′tûr; -chẽr	ȧd·vĕn′chẽ(r)	ȧd·vĕn′chẽ	ăd·vĕn′tṳr	ăd·vĕn′chŏŏr; -tûr	ăd·vĕn′chẽr
advertisement	ȧd·vûr′tĭz·mĕnt; -tĭs-mĕnt; *or, esp. U. S.,* ăd·vẽr·tīz′mĕnt	ȧd·vûr′tĭz·mĕnt	ȧd·vû′tĭs·mĕnt; -tĭz-	ȧd·vû′tĭs·mĕnt	ăd·vûr′tĭz·mĕnt; ăd-vẽr·tīz′mĕnt	ăd·vûr′tĭz·mĕnt; ăd′-vẽr·tīz′mĕnt	ăd·vûr′tĭs·mĕnt
aerate	ā′ẽr·āt	ā′ẽr·āt	ā′ẽr·āt; âr′āt	âr′āt	ā′ẽ·rāt	ā′ẽr·āt	ā′ẽr·āt
aerial	ā·ē̤r′ĭ·ȧl; âr′ĭ·ȧl	ā·ē̤r′ĭ·ȧl; ā·ĕr′ĭ·ȧl; -yȧl *S. Ox.* âr′ĭ·ȧl; ā·ē̤r′ĭ·ȧl; -yȧl	âr′ĭ·ȧl	âr′ĭ·ȧl	ā·ē′rĭ·ȧl	ā·ē′rĭ·ȧl	ā·ē̤r′ē·ȧl
aerie	ā′ẽr·ĭ; ē̤r′ĭ	âr′ĭ; ē̤r′ĭ	âr′ĭ; ē̤r′ĭ	âr′ĭ	â′rĭ; ā′rĭ; ā′ẽr·ĭ; ē′rĭ *N. C.* â′rĭ; ē′rĭ	ā′ẽr·ĭ	âr′ĭ
aeronaut	ā′ẽr·ŏ·nôt; âr′ŏ·nôt	ā′ẽr·ŏ·nôt; âr′ŏ·nôt *S. Ox.* âr′ŏ·nôt; ā′ẽr-ŏ·nôt	ā′ẽr·ŭ·nôt; âr′ŭ-	âr′ŭ·nôt	ā′ẽ·rŏ·nôt *N. C.* ā′ẽ·rŏ·nôt′	ā′ẽr·ŏ·nôt	ā′ẽr·ŭ·nôt
afford	ȧ·fōrd′	ȧ·fōrd′	ȧ·fôd′	ȧ·fôd′	ȧ·fōrd′	ă·fōrd′	ȧ·fōrd′

Pronunciation

	WEBSTER	*OXF. E. D.*	*JONES*	*WYLD*	*CENTURY*	*F. & W.*	*HEMPL*
agape	ȧ·găp′; ȧ·găp′	ȧ·găp′	ȧ·găp′	ȧ·găp′	ă·găp′; ă·găp′	ȧ·găp′	ȧ·găp′
agate	ăg′ĭt; -ȧt	ăg′ĕt	ăg′ȧt; -ĭt; -ĕt	ăg′ĭt	ăg′ăt	ăg′ĭt	ăg′ĭt
agile	ăj′ĭl; -īl	ăj′ĭl; -īl	ăj′īl	ăj′īl	ăj′ĭl	ăj′ĭl	ăj′ĭl
agriculture	ăg′rĭ·kŭl′tûr	ăg′rĭ·kŭl′tûr;-chĕr	ăg′rĭ·kŭl·chĕ(r)	ăg′rĭ·kŭl′chĕ	ăg′rĭ·kŭl·tûr	ăg′rĭ·kŭl′chōōr; -tûr	ăg′rĭ·kŭl·chĕr
aide-de-camp	ād′dē·kămp′; äd′dē-käɴ′	äd′dē·käɴ′; äd′dē-kông′	äd′dē·käɴ(ng)′; -kôɴ-(ng)′; -käng′; -ô-; *F.* ĕd·dē·käɴ	äd′dē·käɴ′	äd′dē·kămp; äd′dē-kôɴ *N. C.* äd′dē·kămp′; *F.* äd·dē·käɴ	äd′dē·kămp′; äd′dē-käɴ′	äd′dĭ·kămp
aigrette	ā·grĕt′; ā′grĕt	ā′grĕt	ā′grĕt; ā·grĕt′	ā′grĕt′	ā′grĕt; ā·grĕt′ *N. C.* ā·grĕt′	ā′grĕt′	ā′grĭt
albino	ăl·bī′nō, *esp. Brit.*, ăl·bē′nō	ăl·bē′nō; ăl·bī′nō	ăl·bē′nō; ăl·bī′nō	ăl·bē′nō	ăl·bī′nō *N. C.* ăl·bī′nō; ăl·bē′-nō	ăl·bī′nō	ăl·bī′nō
alkaline	ăl′kȧ·līn; -lĭn	ăl′kȧ·līn	ăl′kȧ·līn	ăl′kȧ·līn	ăl′kă·lĭn; -līn	ăl′kȧ·lĭn; -lĭn	ăl′kȧ·līn
ally, *n.*	ă·lī′; ăl′ī	ȧ·lī′	ȧ·lī′; ă-; ăl′ī	ȧ·lī′	ă·lī′; ăl′ī	ă·lī′	ȧ·lī′
almond	ä′mŭnd; ăm′ŭnd	ä′mŭnd	ä′mŭnd	ä′mŭnd	ä′mŏnd; ăl′mŏnd *N. C.* ä′mŏnd	ä′mŭnd; ăl′mŭnd	ä′mŭnd
Alpine	ăl′pīn; -pĭn	ăl′pīn	ăl′pīn	ăl′pīn	ăl′pĭn; ăl′pīn	ăl′pĭn; -pīn	ăl′pīn
altercation	ôl′tĕr·kā′shŭn; ăl′-	ăl·tĕr·kā′shŭn; ôl′-	ôl′tû·kā′sh(ŭ)n; ŏl′-; -tĕ-	ôl′tĕ·kā′shŭn	ăl·tĕr·kā′shŏn *N. C.* ăl·tĕr·kā′shŏn; ôl-	ăl′tĕr·kā′shŭn; ôl′-	ôl·tĕr·kā′shŭn
alternate, *adj. & n.*	ôl′tĕr·nĭt; ăl′-; ôl·tûr′-nĭt; ăl-	ăl·tûr′nĕt; ŏl- *S. Ox.* ăl·tûr′nāt; ôl-	ôl·tû′nĭt; ŏl-; ăl-	ôl′tû′nĭt	ăl·tûr′năt *N. C.* ăl·tûr′năt; ôl-	ăl·tûr′nĭt; ôl-	ôl·tûr′nĭt
alternate, *v.*	ôl′tĕr·nāt; ăl′-	ăl′tĕr·nāt; ôl′-	ôl′tû·nāt; ŏl′-; ăl′-; -tĕ-	ôl′tĕ·nāt	ăl′tĕr·nāt *N. C.* ăl′tĕr·nāt; ôl′-	ăl′tĕr·nāt; ôl′-	ôl′tĕr·nāt
alveolar	ăl·vē′ō·lĕr; ăl′vē·ō·lĕr	ăl·vē′ō·lȧr; ăl′vē·ō·lȧr	ăl′vĭ·ō·lĕ(r); ăl′vĭ·ō′-lĕ(r); +	ăl·vē′ŭ·lĕ	ăl·vē′ō·lȧr; ăl′vē·ō·lȧr	ăl′vĭ·ō·lĕr; ăl·vē′ō·lĕr	ăl′vē·ŭ·lĕr
amateur	ăm′ȧ·tûr′; ăm′ȧ·tûr	ăm·ȧ·tûr′; ăm′ȧ·tūr	ăm′ȧ·tû(r)′; -tyōōĕ(r)′; ăm′ȧ-; ăm′ȧ·tû(r); -tyōōĕ(r); +	ăm′ȧ·tû′; ăm′ȧ·tyô	ăm′ă·tūr; ăm·ă·tûr′; *F.* ăm·ă·tûr′ *N. C.* ăm′ă·tūr; ăm·ă-tûr′	ăm′ȧ·tûr′; ăm′ȧ·tūr	ăm·ȧ·tûr′; ăm′ȧ·tûr
ambrosia	ăm·brō′zhĭ·ȧ; -zĭ·ȧ	ăm·brō′zĭ·ȧ; -zyȧ; -zhĭ·ȧ; -zbyȧ	ăm·brō′zĭ·ȧ; -zyȧ; -zhĭ·ȧ; -zhyȧ	ăm·brō′zĭ·ȧ	ăm·brō′ziȧ; -zhiȧ	ăm·brō′zhĭ·ȧ	ăm·brō′zhȧ
ameliorate	ȧ·mēl′yō·rāt	ȧ·mē′lĭ·ō·rāt; -mēl′yō-	ȧ·mē′lĭ·ĕr·āt; -mēl′-yĕr-; +	ȧ·mēl′yĕr·āt	ă·mē′lyō·rāt	ȧ·mēl′yō·rāt	ȧ·mēl′yĕr·āt
amenable	ȧ·mē′nȧ·b′l; -mĕn′ȧ-b′l	ȧ·mē′nȧ·b′l	ȧ·mē′nȧ·bl	ȧ·mē′nȧ·bl	ă·mē′nă·bl	ȧ·mē′nȧ·bl	ȧ·mē′nȧ·bĕl
amusive	ȧ·mū′zĭv; -sĭv	ȧ·mū′zĭv	. . . .	ȧ·mū′zĭv	ă·mū′zĭv	ȧ·mū′zĭv	. . . .
anchovy	ăn·chō′vĭ; ăn′chō·vĭ	ăn·chō′vĭ; ăn′chō·vĭ	ăn·chō′vĭ; ăn′chŭ·vĭ	ăn′chŭ·vĭ; ăn′chō′vĭ	ăn·chō′vĭ *N. C.* ăn·chō′vĭ; ăn′-chō·vĭ	ăn·chō′vĭ	ăn·chō′vĭ
anemic, anaemic	ȧ·nē′mĭk; ȧ·nĕm′ĭk	ȧ·nĕm′ĭk	ȧ·nē′mĭk; ă-	ă·nē′mĭk	ă·nĕm′ĭk *N. C.* ă·nē′mĭk; ă-nĕm′ĭk	ȧ·nē′mĭk	. . . .
anesthesia	ăn′ĕs·thē′zhĭ·ȧ; -zhȧ; -zĭ·ȧ	ăn·ĭs·thē′sĭ·ȧ; ăn·ĕs-; -syȧ	ăn′ĕs·thē′zĭ·ȧ; ăn′ĭs-; -zyȧ; -zhĭ·ȧ; -zhyȧ; -zhȧ	ăn′ĭs·thē′zĭ·ȧ	ăn·ĕs·thē′sĭ·ȧ *N. C.* ăn·ĕs·thē′ziȧ; -zhiȧ	ăn′ĕs·thē′sĭ·ȧ; -zhĭ·ȧ	ăn·ĭs·thē′zhȧ
aniline	ăn′ĭ·lĭn; -līn; -lēn	ăn′ĭ·līn	ăn′ĭ·līn; -lēn; -lĭn	ăn′ĭ·līn	ăn′ĭ·lĭn	ăn′ĭ·lĭn; -lēn; -lĭn	ăn′ĭ lĭn
annunciation	ȧ·nŭn′sĭ·ā′shŭn; -shĭ-	ȧ·nŭn′sĭ·ā′shŭn	ȧ·nŭn′sĭ·ā′sh(ŭ)n	ȧ·nŭn′sĭ·ā′shŭn	ă·nŭn·sĭ·ā′shŏn; -shĭ-	ă·nŭn′sĭ·ā′shŭn	ȧ·nŭn·shĭ·ā′shŭn
answer	ȧn′sĕr; 83	ȧn′sĕr; ăn′-	ȧn′sĕ(r)	ȧn′sĕ	ȧn′sĕr	ȧn′sĕr	ȧn′sĕr
anthropoid	ăn′thrō·poid	ăn′thrō·poid; ăn-thrō′-	ăn′thrō·poid; ăn-thrō′poid; +	ăn′thrŭ·poid	ăn′thrō·poid	ăn′thrō·poid	ăn′thrŭ·poid
apotheosis	ȧ·pŏth′ē·ō′sĭs; ăp′ō-thē′ō·sĭs	ăp·ō·thē′ō·sĭs; ȧ·pŏth′-ē·ō′sĭs	ȧ·pŏth′ĭ·ō′sĭs; ăp′ō-thĭ·ō′sĭs; ăp′ŭ-	ȧ·pŏth′ĭ·ō′sĭs	ăp·ō·thē′ō·sĭs; ăp′ō-thē·ō′sĭs *N. C.* ăp·ō·thē′ō·sĭs; ă·pŏth′ē·ō′sĭs	ăp′ō·thē′ō·sĭs	ȧ·pŏth·ē·ō′sĭs
apparatus	ăp′ȧ·rā′tŭs; -răt′ŭs	ăp·ȧ·rā′tŭs	ăp′ȧ·rē′tŭs	ăp′ȧ·rā′tŭs	ăp·ă·rā′tŭs	ăp′ȧ·rā′tŭs; -rā′tŭs	ăp·ȧ·rā′tŭs
apparent	ă·păr′ĕnt; ă·pâr′-	ȧ·pâr′ĕnt; ȧ·păr′-	ȧ·păr′ĕnt; ȧ·pâr′-; +	ȧ·pâr′ĕnt	ă·pâr′ĕnt *N. C.* ă·pâr′ĕnt; ă-păr′-	ă·păr′ĕnt	ȧ·păr′ĕnt
appendicitis	ă·pĕn′dĭ·sī′tĭs	ȧ·pĕn·dĭ·sī′tĭs	ȧ·pĕn′dĭ·sī′tĭs	ȧ·pĕn′dĭ·sī′tĭs	ă·pĕn′dĭ·sī′tĭs	ă·pĕn′dĭ·sī′tĭs; -sē′tĭs	ȧ·pĕn·dĭ·sī′tĭs
apricot	ā′prĭ·kŏt; ăp′rĭ-	ā′prĭ·kŏt	ā′prĭ·kŏt	ā′prĭ·kŏt	ā′prĭ·kŏt; ăp′rĭ·kŏt	ā′prĭ·kŏt; ăp′rĭ·kŏt	ăp′rĭ·kŏt
apropos	ăp′rō·pō′	ȧ·prō·pō′	ăp′rŭ·pō	ăp′rŭ·pō′	ăp·rō·pō′	ăp′rō·pō′	ăp·rŭ·pō′
aquamarine	ăk′wȧ·mȧ·rēn′; ā′-kwȧ-	ā′kwȧ·mȧ·rēn′	ăk′wȧ·mȧ·rēn′	ăk′wȧ·mȧ·rēn′	ā′kwă·mă·rēn′ *N. C.* ā′kwă·mă·rēn′; ăk′wă-	ā′kwȧ·mȧ·rēn′	ăk′wȧ mȧ·rēn′
aqueous	ā′kwē·ŭs; ăk′wē-	ā′kwē·ŭs	ā′kwĭ·ŭs; ăk′wĭ-	ā′kwĭ·ŭs	ā′kwē·ŭs	ā′kwĭ·ŭs	ā′kwē·ŭs
aquiline	ăk′wĭ·lĭn; -līn	ăk′wĭ·līn; -lĭn	ăk′wĭ·līn	ăk′wĭ·līn	ăk′wĭ·lĭn; -līn	ăk′wĭ·lĭn; -līn	ăk′wĭ·lĭn
arbutus	är·bū′tŭs; *L.* är′bū-tŭs	är′bū·tŭs; *U. S.* är-bū′tŭs *S. Ox.* är′bū·tŭs	ä·bū′tŭs	ä·bū′tŭs	är·bū′tŭs; *L.* är′bū·tŭs *N. C.* är′bū·tŭs; *U. S.* är·bū′tŭs	*(tree)* är′bū·tŭs; *(vine)* är·bū′tŭs	är·bū′tŭs
area	ā′rē·ȧ; âr′ē·ȧ	âr′ē·ȧ	âr′ĭ·ȧ	âr′ĭ·ȧ	ā′rē·ȧ	ā′rĭ·ȧ	âr′ē·ȧ
argot	är′gō; -gŏt	är·gō	ä′gō; *F.* ar·gō	ä′gō	är′gō; är′gŏt	är′gō; är′gŏt	är′gō
aria	ä′rĭ·ȧ; âr′ĭ·ȧ	ä′rĭ·ȧ	ä′rĭ·ȧ; âr′ĭ·ȧ	ä′rĭ·ä	ä′rĭ·ȧ; ā′rĭ·ȧ *N. C.* ä′rĭ·ȧ	ä′rĭ·ä; ā′rĭ·ȧ	. . . .
aristocrat	ă·rĭs′tō·krăt; ăr′ĭs-tō·krăt	ăr′ĭs·tō·krăt; ȧ·rĭs′-tō·krăt	ăr′ĭs·tŭ·krăt; ă·rĭs′-; ȧ·rĭs′-; +	ăr′ĭs·tŭ·krăt	ăr′ĭs·tō·krăt; ă·rĭs′tō-krăt	ȧ·rĭs′tō·krăt; ăr′ĭs-	ȧ·rĭs′tŭ·krăt
armada	är·mā′dȧ; -mä′dȧ	är·mā′dȧ	ä·mā′dȧ; -mä′dȧ	ä·mā′dȧ	är·mā′dȧ *N. C.* är·mā′dȧ; -mä′dȧ	är·mā′dȧ; -mä′dȧ	är·mā′dȧ
artisan	är′tĭ·zăn; *Brit.* är′-tĭ·zăn′	är·tĭ·zăn′	ä′tĭ·zăn′; ä′tĭ·zăn	ä′tĭ·zăn′	är′tĭ·zăn; *in England often* är·tĭ·zăn′	är′tĭ·zăn	är′tĭ·zăn
Aryan	âr′ĭ·ăn; är′yăn	âr′ĭ·ăn; -yăn; ä′rĭ·ăn; är′yăn	âr′ĭ·ăn; ä′rĭ·ăn	âr′ĭ·ăn	är′yăn; ăr′ĭ·ăn	är′yăn; ăr′ĭ·ăn	är′yăn
asbestos	ăs·bĕs′tŏs; ăz-	ăz·bĕs′tŏs; -tŭs	ăz·bĕs′tŏs; ăz-; -tŭs	ăz′bĕs′tŏs	ăs·bĕs′tŏs; -tŭs *N. C.* ăs·bĕs′tŏs; -tŭs; ăz-	ăs·bĕs′tŭs	ăs·bĕs′tŭs
Asiatic	ā′zhĭ·ăt′ĭk; ā′shĭ-	ā·shĭ·ăt′ĭk	ā′shĭ·ăt′ĭk	ā′shĭ·ăt′ĭk	ā·shĭ·ăt′ĭk; ā·zhĭ-ăsk	ā′shĭ·ăt′ĭk	ā·zhē·ăt′ĭk
ask, *v.*	ȧsk; 83	ȧsk; ăsk	äsk	äsk	ȧsk	ȧsk	ȧsk
associate, *v.*	ă·sō′shĭ·āt	ȧ·sō′shĭ·āt	ȧ·sō′shĭ·āt; -shyāt; -sĭ-āt; -syāt	ȧ·sō′shĭ·āt	ă·sō′shĭ·āt	ă·sō′shĭ·āt	ȧ·sō′shē·āt
association	ă·sō′sĭ·ā′shŭn; -shĭ-	ȧ·sō′shĭ·ā′shŭn; ȧ·sō′-sĭ-	ȧ·sō′sĭ·ā′sh(ŭ)n; -shĭ-	ȧ·sō′shĭ·ā′shŭn; -sĭ-	ă·sō·sĭ·ā′shŏn; -shĭ-	ă·sō′sĭ·ā′shŭn	ȧ·sō·shē·ā′shŭn
astute	ăs·tūt′	ȧ·stūt′	ȧs·tūt′; ăs·tūt′	ȧ·stūt′	ăs·tūt′	ăs·tūt′	ȧ·stūt′
atropine	ăt′rō·pēn; -pĭn	ăt′rō·pīn	ăt′rō·pēn	ăt′rŭ·pēn	ăt′rō·pĭn	ăt′rō·pĭn; -pēn	. . . .
attaché	ăt′ȧ·shā′ *or, Brit.,* ă-tăsh′ā; *F.* ȧ′tȧ′shā′	ȧ·tă′shā; ă·tăsh′ā *S. Ox.* ȧ·tȧ′shā	ȧ·tăsh′ā; ă-; *F.* ȧ·tȧ-shā	ȧ·tăsh′ā	ă·tă·shā′ *N. C.* ă·tȧ′shā; *F.* ȧ·tȧ·shā	ȧ′tȧ′shā′	ăt·ȧ·shā′
automobile, *n.*	ô′tō·mō·bēl′; -mō′bĭl *or* -bēl; ô′	ô·tō·mō′bĭl; ô′tō·mō-bēl′	ô′tō·mō·bēl; ô′tō·mō-bēl′; ô′tŭ·mō′bēl; +	ô′tō·mō·bēl′	ô·tō·mō′bĭl *N. C.* ô·tō·mō·bēl′; -mō′bēl	ô′tō·mō·bēl′; -mō′bĭl	ô·tŭ·mō·bēl′
auxiliary	ôg·zĭl′yȧ·rĭ	ôg·zĭl′ĭ·ȧ·rĭ; -yȧ·rĭ	ôg·zĭl′yȧ·rĭ; ôk·sĭl′-; ôk·zĭl′-; ôg-; ôk-	ôg·zĭl′ĭ·ȧ·rĭ	ôg·zĭl′iȧ·rĭ	ôgz·ĭl′yȧ·rĭ; -ĭ·ȧ·rĭ	ôg·zĭl′yȧ·rĭ
avalanche	ăv′ȧ·lȧnch; 83	ăv′ȧ·lȧnsh; -ă-; ăv·ȧ-lȧnsh′; -ă-	ăv′ȧ·lȧnsh	ăv′ȧ·lȧnsh	ăv′ȧ·lȧnch	ăv′ȧ·lȧnch	ăv′ȧ·lȧnsh
aversion	ȧ·vûr′zhŭn; -shŭn	ȧ·vûr′shŭn	ȧ·vû′sh(ŭ)n	ȧ·vû′shŭn	ă·vûr′shŏn	ȧ·vûr′shŭn	ȧ·vûr′shŭn
aviator	ā′vĭ·ā′tĕr	ā′vĭ·ā·tĕr	ā′vĭ·ā·tĕ(r); ăv′ĭ-	ā′vĭ·ā′tĕ	ā′vĭ·ā·tŏr	ā′vĭ·ā′tĕr	. . . .
azure	ăzh′ĕr; ā′zhĕr	ăzh′ĕr; ā′zhûr	ăzh′ĕ(r); ā′-; -yōōĕ(r); -ōōĕ(r); -yĕ(r); +	ăzh′ĕ; ā′zhĕ	ăzh′ûr; ā′zhûr	ăzh′ōōr	ăzh′ĕr
B							
bacchante	bȧ·kănt′; bȧ·kăn′tē	bȧ·kănt′; -kănt′, băk′-ănt, bȧ·kăn′tē	bȧ·kăn′tĭ; bȧ·kănt′	băk′ȧnt; bȧ·kăn′tĭ	băk′ănt; bă·kănt′; bă·kăn′tē *N. C.* bă·kȧnt′; băk′-ănt; bă·kăn′tē	băk′ȧnt; bă·kănt′	bȧ·kȧnt′
backgammon	băk′găm′ŭn; băk-găm′ŭn	băk·găm′ŭn	băk′găm′ŭn; băk′-găm′ŭn	bă(k)·găm′ŭn	băk·găm′ŏn *N. C.* băk·găm′ŏn; băk′găm′ŏn	băk′găm′ŭn	băk′găm·ŭn
badinage	băd′ĭ·näzh′; băd′ĭ-näzh, băd′ĭ·nĭj	bä·dĭ·näzh′; băd′ĭ·nĭj	băd′ĭ·näzh′; băd′ē-; *F.* bä·dē·näzh	băd′ĭ·näzh′	băd·ĭ·näzh′; băd′ĭ·nāj *N. C.* băd′ĭ·nāj; *F.* bä·dē·näzh	bä′dē′näzh′; băd′ĭ·nĭj	băd′n·ĭj
ballet	băl′ā, bă·lā′	băl′ā; *rarely* băl′ĭt	băl′ā; băl′ĭ	băl′ā	băl′ā; *sometimes* băl′ĕt *N. C.* băl′ā	bă′lā′	băl′ā
balsamic	bôl·săm′ĭk; băl-	bôl·săm′ĭk, băl-	bôl·săm′ĭk; băl-; bŏl-	bôl·săm′ĭk	bôl·săm′ĭk; băl-	bôl·săm′ĭk	bôl·săm′ĭk
balustrade	băl′ŭs·trād′	băl′ŭs·trād′	băl′ŭs·trād′	băl′ŭs·trād′	băl·ŭs·trād′	băl′ŭs·trād′	băl·ŭ·strād′

RULES FOR SPELLING CERTAIN CLASSES OF WORDS

FOUNDED ON THE ORTHOGRAPHY OF NOAH WEBSTER

FINAL CONSONANTS

§ 1. **The letters f and l**, at the end of monosyllables, and standing immediately after single vowels, are generally doubled: as in *staff, cliff, doff, puff; all, bell, hill, toll, null.* The words *clef, if, of, pal, nil,* and *sol,* are the most important exceptions.

§ 2. **The letter s**, at the end of a monosyllable, and standing immediately after a single vowel, is generally doubled, as in *grass, press, hiss, moss, truss,* except when (e.g., in *o's, spade's, tones, loves, has, is, was,* etc.) it is used to form the possessive case or the plural of a noun, or the third person singular of a verb. The only important exceptions are *as, gas, yes, gris, his, this, pus, plus, bus* (for *omnibus*), *thus,* and *us.*

§ 3. **B, d, g, m, n, p, r, t, z** are the only other consonants (besides *f, l,* and *s*) that are ever doubled at the end of a word. The following list contains nearly all the words in which these letters are doubled, including some that are spelled more or less with a single consonant: namely, *abb, ebb; add, odd, dodd, wadd* (Min.), *rudd; jagg, egg, bigg* (n. & v.), *vugg; mumm* (to mask); *Ann, ann* (Law), *inn, Finn, jinn, wynn, bunn, sunn* (Bot.); *Lapp; gnarr, parr, err, birr, shirr, skirr, dorr, burr, hurr, murr, purr; frett, bitt* (Naut.), *mitt, smitt, pott* (paper), *butt; fizz, frizz, buzz, fuzz, huzz.* The words *net* and *set* are sometimes incorrectly spelled *nett* and *sett;* and some other words which should have the final letter single are spelled, by some writers, with it doubled.

§ 4. **A consonant is rarely doubled** when standing at the end of a word immediately after a diphthong or double vowel. The words *ail, peat, haul, door,* and *maim,* are examples. The words *feoff, enfeoff, gneiss, speiss,* are exceptions. The word *guess* is only an apparent exception, as the *u* does not form a diphthong with the *e,* but serves merely to show that the *g* is hard.

§ 5. **Monosyllables ending with the sound of k**, and in which *c* follows the vowel, have usually *k* added after the *c;* as in *black, fleck, click, knock,* and *buck.* The words *bac, lac, sac, talc, tic, zinc, roc, soc, arc, marc, orc, torc, disc,* and *fisc,* are exceptions.

Words of more than one syllable, ending in *-ic* or *-iac,* which formerly ended in *k,* also words derived from the Latin or Greek, or from other sources, and similar to these, or formed in an analogous manner, are now written without the *k;* as, *maniac, elegiac, zodiac, cubic, music, public.* The word *derrick* is an exception. Words of more than one syllable, in which *c* is preceded by other vowels than *i* or *ia,* commonly end in *ck;* as, *arrack, barrack, hammock, hillock, wedlock.* The words *almanac, carac, sandarac, limbec, rebec, varec, xebec, manioc* or *mandioc, havoc,* are exceptions. *Limbec* and *rebec,* however, are still occasionally written with *k* after the *c,* especially in England; and *carac* is oftener written *carack* or *carrack.*

DERIVATIVES

§ 6. **In derivatives formed from words ending in c** by adding a termination beginning with *e, i,* or *y,* the letter *k* is inserted after the *c,* in order that the latter may not be pronounced like *s* before the following vowel: as, *colic, colicky; traffic, trafficked, trafficking, trafficker; physic, physicked, physicking; zinc, zincked, zincking, zincky.* We find also *zincing, zincite, zincy, zinky* (as from *zink*), etc., not conformed to this rule.

§ 7. **Final consonant doubled.** In derivatives formed by adding a termination beginning with a vowel to monosyllables and words accented on the last syllable, when these words end in a single consonant (except *h* and *x*) preceded by a single vowel, that consonant is doubled: as, *clan, clan'nish; plan, planned, plan'ning, plan'ner; bag, bag'gage; hot, hot'ter, hot'test; wit, wit'ty; cabal', cabal'ler; abet', abet'ted, abet'ting, abet'tor; begin', begin'ning, begin'ner; infer', inferred', infer'ring.* The consonant is doubled in these words in order to show the short sound of the vowel, as otherwise the latter would be liable to be pronounced long. Thus, *plănned, hŏttest,* and *abĕtted,* would naturally be pronounced *plāned, hōtest,* and *abēted,* if the consonant were not doubled. Words of this class, in which the final consonant is preceded by *qu,* followed by a single vowel, form no exception to the rule, since the *u* performs the office of consonant *w:* as, *squab, squab'bish, squab'by; squat, squat'ting, squat'ter; quit, quit'ted, quit'ting; acquit', acquit'ted, acquit'ting.*

The derivatives of the word *gas* (except *gas'sing* and *gas'sy*) are written with but one *s;* as, *gas'eous, gase'ity, gas'ify. Ex'cellence,* as being from the Latin *excellens,* retains the double *l,* though one *l* has been dropped from the termination of *excel'.* Besides these, the chief exceptions to the rule are those derivatives in which the accent of the primitive is thrown back upon another syllable: as, *prefer', pref'erence; refer', ref'erence; defer', def'erence.* But *infer'able, transfer'able,* are common exceptions. It is no exception to this rule that *chancellor,* and the derivatives of *metal* and *crystal,* as *metalloid, metallurgy, crystalline, crystallize,* and the like, are written with the *l* doubled, since they are derived respectively from the Latin *cancellarius* (through the French), and *metallum,* and the Greek *krystallos.* So also the word *tranquillity* has the double *l,* as being from Latin *tranquillitas,* while the English derivatives of *tranquil,* though often written with two *l's,* are more properly written with only one, as *tranquilize, tranquilizer,* etc.

§ 8. **Final consonant not doubled.** When a diphthong, or a digraph representing a vowel sound, precedes the final consonant of a word, or the accent of a word ending in a single consonant falls on any other syllable than the last, or when the word ends in two different consonants, the final consonant is not doubled in derivatives formed by the addition of a termination beginning with a vowel: as, *daub, daubed, daub'er; need, need'y; brief, brief'er, brief'est; trav'ail, trav'ailed, trav'ailing; rev'el, rev'eled, rev'eling; trav'el, trav'eling, trav'eler; prof'it, prof'ited; act, act'ed, ac'tor; perform', perform'er; stand, stand'ing.* See Note, below.

The final consonant is doubled in the derivatives of a few words ending in *g* in order to diminish the liability of its being pronounced like *j,* before *e* or *i:* as, *hum'bug', hum'bugged', hum'bug'ging; per'iwig, per'iwigged.* The derivatives of *kid'nap',* which properly has a secondary accent on the final syllable, are spelled with or without the *p* doubled; as, *kid'naped'* or *kid'napped', kid'nap'ing* or *kid'nap'ping, kid'nap'er* or *kid'nap'per.* The word *wool'en* is more generally thus written, in the United States, with one *l;* but in England it is written *wool'len.*

Note. There is a large class of words ending in a single consonant, and accented on some other syllable than the last, the final consonants of which are, by very many writers and lexicographers, doubled in their derivatives. These words are chiefly those ending in *l,* with also a few of other terminations. The following list, the words in which are chiefly verbs, includes the most important of those in regard to which usage varies: namely, *apparel, barrel, bevel, bias, bowel* and its compounds, *cancel, carburet* and all similar words ending in *-uret, cavil, carol, channel, chisel, counsel, cudgel, dial, dishevel, dowel, drivel, duel, empanel, enamel, equal, funnel, gambol, gravel, grovel, handsel, hatchel, imperil, jewel, kennel, kidnap, label, laurel, level, libel, marshal, marvel, metal* (see § 7), *medal, model, panel, parallel, parcel, pencil, peril, pistol, pommel, quarrel, ravel, revel, rival, rowel, shovel, shrivel, snivel, tassel, tinsel, trammel, travel, tunnel, unravel, vial, victual, worship.* The Oxford English Dictionary prefers the forms with the doubled letters, except for a few words like *bias, carol, pistol.* For the accommodation of the whole English-speaking public, both of the prevalent spellings are usually given in this *Dictionary,* that with the single consonant having the first place.

§ 9. **Double consonant retained.** Derivatives formed from words ending in a double consonant, by adding one or more syllables, commonly retain both consonants: as, *ebb, ebbing; odd, oddly; stiff, stiffness; fell, fellable; skill, skillful, skillfulness; will, willful, willfulness; dull, dullness; full, fullness.* So also the double *l* is retained in the preferred forms of the words *installment, enthrallment, thralldom,* and *enrollment* (from *install, enthrall, thrall,* and *enroll*), in order to prevent an erroneous pronunciation with short *ă* if spelled with one *l.* Many writers and lexicographers, especially in England, omit one *l* in these four words, as also in the derivatives of *skill, will, dull,* and *full* (*skilful, wilful,* etc.). See §§ 16, 17.

The derivatives of *pontiff* are exceptions to the rule, being written with only one *f;* as, *pontific, pontifical, pontificial,* and the like. One *l* is also dropped in a few words formed by adding the termination *-ly* to words ending in *ll,* in order to prevent the concurrence of three *l's:* as, *ill, illy; dull, dully; full, fully.* Words similarly formed by adding the termination *-less,* however, are written either with the three *l's,* a hyphen being inserted before the termination, or with two *l's,* and without the hyphen; as, *skill-less,* or *skilless.*

§ 10. **Silent *e* retained.** In derivatives formed from words ending with silent *e,* the *e* is generally retained when the termination begins with a consonant: as, *pale, paleness; hate, hateful; incite, incitement; chaste, chastely, chasteness; move, movement.* When, however, the *e* is immediately preceded by another vowel (except *e*), it is often dropped from the derivative: as, *due, duly; argue, argument; true, truly; awe, awful;* and the derivatives and compounds of these words.

The words *wholly, nursling, abridgment, acknowledgment, lodgment, judgment,* and the compounds of some of these, are exceptions. The last four, however, are written, by many authors, *abridgement, acknowledgement, lodgement, judgement.*

§ 11. **Silent *e* omitted.** In derivatives formed from words ending with silent *e,* when the termination begins with a vowel, the *e* is generally omitted, except in the cases mentioned in the next paragraph: as, *bride, bridal; guide, guidance; plume, plumage; use, usable, usage; grieve, grievance; come, coming; shape, shaping; move, movable; sale, salable; fleece, fleecy; force, forcible; true, truism.*

The *e* is retained in the words *hoeing, shoeing,* and *toeing* (from *hoe, shoe,* and *toe*), in order to guard against mispronunciation, and is generally, for a like reason, excluded from *shoer* (cf. *hoed, shod, toed*). It is retained, also, in the words *dyeing, singeing, springeing, swingeing, tingeing* (from *dye, singe, springe, swinge, tinge*), to distinguish them from *dying, singing, springing, swinging, tinging* (from *die, sing, spring, swing, ting*). The word *mileage,* as commonly written, does not omit the *e,* though it is sometimes spelled *milage.* The words *lineage, lineal,* and *pineal,* though apparently exceptions, are not really such, since they are derived not directly from *line* and *pine,* but from the Latin *linea* (through the French), *linealis,* and *pinea.* The *e,* standing, in a derivative, before a termination beginning with *a* or *o,* and immediately after *c* or *g,* is retained in order to prevent the pronunciation of these consonants with the hard sound: as, *peace, peaceable; notice, noticeable; manage, manageable; change, changeable; advantage, advantageous; outrage, outrageous. Mortgagor,* pronounced *mor'ga·jor',* from *mortgage,* and *pledgor,* pronounced *plej·or',* from *pledge,* are the forms preferred in usage. In derivatives in *-able,* as *usable, useable, salable, saleable,* etc., usage is divided and often inconsistent in various writings of the same authors.

§ 12. **Ending *-ing* added to *ie*.** In derivatives formed from words ending in *ie,* by adding the termination *-ing,* the *e* is usually dropped, and the *i* changed to *y,* in order to prevent two *i's* from coming together: as, *die, dying; hie, hying* (but some writers write *hieing*); *lie, lying; tie, tying; vie, vying.*

§ 13. ***y* preceded by a consonant.** In derivatives of words ending in *y,* preceded by a consonant, and formed by appending any termination except one beginning with *i,* the *y* is usually changed into *i:* as, *icy, iciest, icily; mercy, merciless; tidy, tidiness; modify, modifies; foggy, fogginess; earthy, earthiness; pity, pitiful.*

The derivatives of adjectives of one syllable ending in *y,* preceded by a consonant, are exceptions, and usually retain the *y:* as, *shy, shyness; sly, slyest; dry, dryly; spry, spryer, spryest; wry, wryness.* But the adjectives *drier* and *driest,* from *dry,* are commonly written with *i* instead of *y;* and the forms *drily, shily, slily,* are not uncommon. Derivatives formed by adding the termination *-ship,* as *secretaryship, suretyship, ladyship,* and the like, also retain the *y,* though some authors write them with *i.* Derivatives in *-like,* as *citylike, countrylike,* and those formed from *baby* and *lady,* keep the *y.* The *y* is also retained in the possessive case of nouns, when formed by adding *s* with the apostrophe; as, *country's, everybody's.*

§ 14. ***y* preceded by a vowel.** Derivatives formed by affixing a termination to words ending in *y* preceded by a vowel, generally retain the *y* unchanged: as, *play, player, plays; sway, swayed; obey, obeying; joy, joyful; enjoy, enjoyed; buy, buying; gluey, glueyness.*

The words *daily, gaiety, gaily, laid, paid, said, saith, slain,* and *staid* (from *day, gay, lay, pay, say, slay,* and *stay*), with their compounds, are exceptions. *Staid,* however, is sometimes written *stayed. Says* is regular in form, but not in pronunciation. *Dewiness* is a recognized exception. Derivatives from words ending in *uy,* as *colloquies,* from *colloquy,* are not exceptions to the rule, as *u,* in such cases, is not strictly a vowel, but stands for the consonant *w.*

§ 15. **Adding a vowel to a vowel ending.** Derivatives formed by appending a syllable beginning with a vowel to words ending with a vowel sound, generally retain the letter or letters representing such sound: as, *huzza, huzzaed; agree, agreeable, agreeing; weigh, weighing; dough, doughy; echo, echoed; woo, wooer; bow, bowed; beau, beauish.* We sometimes see *cooes, wooes* (from the verbs *coo, woo*); but it is better to write *coos, woos,* with *taboos, shampoos,* and the like. *Cooed* and *wooed* are proper, like other participles in *-ed.*

Derivatives of words of this class ending in silent *e,* as also those formed from words ending in double *e* by adding a termination beginning with *e,* drop the final *e:* as, *hoe, hoed; sue, sued; owe, owed; free, freer, freest; see, seer; oversee, overseer; agree, agreed, agreer.* The cases mentioned in sections 11, 12, and 13 are also exceptions.

§ 16. **Derivatives formed by prefixing** one or more syllables to words ending in a double consonant commonly retain both consonants: as, *tipstaff, rebuff, recall, befall, enthrall, disenthrall, foretell, undersell, fulfill, enroll, emboss* (from *staff, buff, call, fall, thrall, tell, sell, fill, roll, boss*).

The word *until* is an exception, being always written with one *l.* Those words of this class which end in *ll* are written by some authors, especially in England, with one *l;* as, *recal, enthral, fulfil, enrol.* The words *distill* and *instill* should be written with the *l* doubled, though they are often written *distil* and *instil,* with only one *l.*

§ 17. **Compound words** formed by joining two or more words commonly retain all letters of the simple words; as, *stiff-necked, well-bred, dull-eyed, save-all, widemouthed.*

A B C D E F G H I J K L M

There are numerous exceptions to this rule, many of them compounds which by long use have acquired the force of single words. They are: some compounds of *all* and *well;* as, *almighty, almost, alone, already, also, although, altogether, always, withal, therewithal, welcome, wherewithal, welfare;* — compounds of *mass;* as, *Candlemas, Christmas, Lammas, Michaelmas,* etc.; — words of which the second part is the adjective *full;* as, *artful, hateful, rueful, woeful* or *woful;* also, the words *chilblain,* often *dumfound, expire* and its derivatives (cf. *inspire*), *fulfill* (see § 16), *namesake, neckerchief, numskull, pastime, standish, where'er* and *wherever.*

PLURALS

(See also PLURAL, *n., Note,* in the *Vocabulary.*)

§ 18. The plural of English nouns regularly ends in *s*, or, in certain classes of words, in *es*.

When the noun in the singular ends with such a sound that the sound of *s* can unite with it, and be pronounced without forming a separate syllable, *s* only is added in forming the plural: as, *bay, bays; shah, shahs; sea, seas; tree, trees; pie, pies; Hindu, Hindus; woe, woes; canto, cantos; virtue, virtues; purlieu, purlieus; claw, claws; cab, cabs; panic, panics; bead, beads; chief, chiefs; bag, bags; path, paths; ache, aches; plague, plagues; lock, locks; bell, bells; gem, gems; fan, fans; cup, cups; ear, ears; act, acts.* The plurals of some nouns ending in *o* **preceded by a consonant** end in *es;* as, *echo, echoes; cargo, cargoes* (also *cargos*); *embargo, embargoes; motto, mottoes* (also *mottos*), *potato, potatoes.* Other nouns of this class generally form their plurals regularly, though usage differs with regard to some of them. Those in which final *o* is **preceded by a vowel** form their plurals regularly; as, *cameo, cameos; punctilio, punctilios.* The plural of *alkali* is written *alkalies* or *alkalis;* that of *rabbi,* either *rabbis* or *rabbies.* With regard to other **nouns ending in *i*** usage differs, though they are more properly written with the termination *-is.*

When the noun in the singular ends with such a sound (as that of *ch* in *much, sh, j, s, x,* or *z*) that the sound of *s* cannot unite with it in pronunciation, but must form a separate syllable, e is inserted before *s* in forming the plural, unless the word ends with silent *e,* in which case the latter serves to form a separate syllable with *s:* as, *church, churches; rush, rushes; age, ages; edge, edges; lace, laces; gas, gases; class, classes; alias, aliases; marquis, marquises; case, cases; loss, losses; box, boxes; maze, mazes.* For *classis, crisis,* and like words, see § 25.

Plural of a letter, figure, sign, etc. To express the plural of a letter, figure, or any character or sign, or of a word mentioned without regard to its meaning, the letter *s,* generally preceded by the apostrophe, is appended, as in the phrases, "The two *l's* in *all*"; "The two *0's* in *400*"; "Two *'s in Orion"; "The *why's* and *wherefore's* of the question." Some writers, however, omit the apostrophe in such cases, joining the *s* immediately to the letter, character, or word, as in the phrases, "The two *ls* in *all*"; "Two *s in Orion"; "The *pros* and *cons.*" The names of the letters with their proper plural endings may be used instead of the letters themselves; as, the two *ees, efs, ells, esses,* and the like.

§ 19. Nouns ending in *y* **preceded by a consonant** form their plural by adding *es* and changing *y* into *i:* as, *mercy, mercies; lady, ladies; sky, skies; army, armies; pity, pities.* This rule includes words ending in *quy,* in which *u,* being pronounced like *w,* is strictly a consonant; as, *colloquy, colloquies.* The plural of proper nouns ending in *y* preceded by a consonant is formed by adding *s;* as, "The three *Marys.*"

When the singular of a noun ends in *y* **preceded by a vowel** (except *u* pronounced *w*), the plural is regularly formed by adding *s* only: as, *day, days; key, keys; money, moneys; monkey, monkeys; attorney, attorneys; alloy, alloys; guy, guys.* Some plurals of the latter class are often written with the termination *ies;* as, *monies.*

NOTE. Nouns now ending in *y* formerly ended in *ie,* and formed their plurals regularly by adding *s;* as, *memorie, memories; mercie, mercies.* *Y* was finally substituted for *ie* in the singular, but the plural still retains its old form.

§ 20 The plurals of a few **nouns ending in *f* or *fe*** are irregularly formed by changing *f* or *fe* into *ves.* The following words, with their compounds, are the principal examples: namely, *life, lives; knife, knives; wife, wives; leaf, leaves; sheaf, sheaves; loaf, loaves; beef, beeves; thief, thieves; calf, calves; half, halves; elf, elves; shelf, shelves; self, selves; wolf, wolves.* The plural of *staff* is usually *staves,* except in certain senses, as indicated in the treatment of the word (see 2d STAFF, in the *Vocabulary*). The plural of *wharf* is generally written *wharfs* in England; in the United States it is more commonly written *wharves,* as it is also by some recent English writers. The plural of *scarf* is *scarfs,* rarely *scarves.* The plurals of *hoof* and *turf,* formerly written *hooves* and *turves,* are now usually written *hoofs* and *turfs.* The plurals of other nouns ending in *f, fe,* or *ff,* are formed regularly by the addition of *s* only.

§ 21. Plural formed by change of vowel. In the following nouns, the singular and the plural differ in their vowels or vowel sounds: namely, *man, men; woman, women; goose, geese* (but *gooses* in the sense of tailor's irons); *foot, feet; tooth, teeth; brother, brethren* (see §§ 22, 23); *louse, lice; mouse, mice.* Compounds ending with these words form their plurals in the same manner: as, *workman, workmen; dormouse, dormice.* Words which end in the syllable *-man,* and are not compounds, form their plurals regularly, by adding *s* only: as, *cayman, caymans; desman, desmans; firman, firmans; talisman, talismans; German, Germans; Mussulman, Mussulmans; Ottoman, Ottomans; Turkoman, Turkomans.*

§ 22. A few plurals end in -en; namely, *brother, brethren* (see §§ 21, 23); *child, children; ox, oxen.* To these may be added the obsolete or archaic forms, *eyen* or *eyne, kine, shoon, hosen, housen, sistren* (from *eye, cow, shoe, hose, house, sister*).

§ 23 Words having two plurals with different meanings. Some words, as *brother, die, pea, penny, cherub, cloth, genius, index, seraph, staff, stamen,* have two plurals of different forms and with different meanings. See the explanations of these words in the *Vocabulary.* See also § 24. For *acquaintance,* as formerly both singular and plural, see ACQUAINTANCE, *n.,* 3, *Note,* in the *Vocabulary.*

§ 24. Plural same as singular. Some words, mostly names of animals, have the same form in the plural as in the singular: as, *deer, sheep, swine, grouse, trout,* and the like, but these words and some others which ordinarily have no plural, as *wheat, barley,* have plurals formed by adding *s* or *es* when used to denote a number of species. See PLURAL, *n.,* in the *Vocabulary.* Gentile nouns in *-ese* also have the same form in the plural as in the singular; as, *Chinese, Portuguese, Tyrolese, Japanese.* *Fish, fowl,* and some other words, may be used for an indefinite number; or the individuals may be designated as *fishes,* etc.

§ 25. Foreign words. Many words adopted from foreign languages retain their original plurals as, *datum, data; criterion, criteria; genus, genera; larva, larvae; classis, classes* (see *class,* pl. *classes,* in § 18); *crisis, crises; matrix, matrices; focus, foci; monsieur, messieurs.*

Many words of this class, while retaining the original plurals, have also a second formed after the analogy of English words of similar termination: as, *formula, formulae* or *formulas; beau, beaux* or *beaus; focus, foci* or *focuses; index, indices* or *indexes; stratum, strata* or *stratums; bandit, banditti* or *bandits; cherub, cherubim* or *cherubs; seraph, seraphim* or *seraphs.* The plurals of the last two words are sometimes erroneously written *cherubims* and *seraphims,* with double plural terminations, without regard to the fact that in Hebrew words *-im* is a plural ending.

§ 26 In certain loose compounds consisting of a noun followed by an adjective or other qualifying expression, the plural is commonly formed by making the same change in the noun as when it stands alone: as, *court-martial, courts-martial; cousin-german, cousins-german; son-in-law, sons-in-law; knight-errant, knights-errant* (but cf. KNIGHT BACHELOR, MANSERVANT, etc., which have the plurals *knights bachelors, menservants*). When, however, the adjective is so closely joined to the noun that the compound has the force of a simple word, the plural of the compound is commonly formed like that of any other word of the same termination: as, *cupful, cupfuls; handful, handfuls.*

MISCELLANEOUS RULES

§ 27. There are many words, besides those mentioned in the preceding paragraphs, in respect to which usage, even that of the best authors, is variable. The most important of these words are mentioned in this and the succeeding sections.

The derivatives of the word *villain,* as *villainous, villainy,* etc., though sometimes, esp. formerly, written *villanous, villany,* etc., now commonly retain the *i,* like those of other words similarly ending in *ain:* as, *mountainous,* from *mountain; captaincy,* from *captain;* and the like.

The words *connection, deflection, inflection,* and *reflection,* follow the spelling of the words *connect, deflect, inflect,* and *reflect,* though often written, especially in England, *connexion, deflexion, inflexion,* and *reflexion.* See Note under CONNECTION, in the *Vocabulary.*

The word *woe,* though often written without the final *e,* should retain it, like most other nouns of one syllable and of similar form; as, *doe, floe, foe, hoe, sloe, toe,* and the like. Monosyllables other than nouns and also words of more than one syllable having a similar termination, omit the *e;* as, *do, go, no, so, canto, motto, potato.*

The words *defense, expense, offense,* and *pretense* are preferably written thus, for the *s* is used in all their derivatives. The words are often, esp. in England, spelled with *c* instead of *s,* as *defence, expence, offence, pretence.*

The words *drought* and *height* have also often been written *drouth* and *highth* or *hight;* but these forms are now rare in literary usage.

The verb *practice* is thus written like the noun, in preference to the form *practise,* though the latter spelling is used by many writers, especially in England. The difference in spelling between the noun and the verb is properly observed, in words of this kind, only in such as are accented on the last syllable, as *device, devise.* See Note under PRACTICE, *v.,* in the *Vocabulary.*

§ 28. -able or -ible. There is a class of adjectives ending either in *-able* or in *-ible,* of which a large majority have the termination *-able;* as, *blamable, laudable, legible, mutable, navigable, vendible.* Many of them are from Latin words ending in *-abilis* or *-ibilis;* some are from the French; and not a few are formed by adding the termination to English words. The forms in *-ible* occur mostly in words going back directly to Latin verbs ending in *-ere* or *-ire.* For English compounds the form in *-able* has become usual. See Note under -ABLE, in the *Vocabulary.*

§ 29. en- or in-. There is a class of words beginning with *en-* or *in-,* as *enclose* or *inclose, enquire* or *inquire, ensure* or *insure,* and the like, many of which take either form of the prefix indifferently. They are chiefly derived from the Latin, either directly or through the French, the prefix *in-* belonging to the former language, and *en-* to the latter. In some of these words, *en-* is preferred; in others, *in-;* many of them are used indifferently. See the different words of this class in the *Vocabulary.*

§ 30. -ant or -ent. There was formerly considerable diversity of usage in respect to the terminations *-ant* and *-ent,* both of which were, in certain cases, used almost indifferently; as in the words *confidant* or *confident, dependant* or *dependent,* and the like. Present usage, however, is definitely settled in favor of one or the other form in nearly or quite every word of this class, though not always upon uniform principles. Thus, the abstract noun *confidence* and the adjective *confident* are universal, while the common noun is sometimes *confident,* but more often *confidant.* The abstract noun *dependence,* the adjective *dependent,* and the noun *dependent* have almost entirely superseded *dependance, dependant, adj.,* and *dependant, n.* On the other hand, we now have both the adjectives and the common nouns *attendant* and *repentant;* and the abstract nouns *attendance* and *repentance.* See -ANCE, in the *Vocabulary.*

§ 31. -er or -re. There is a class of words ending in *-er,* some of which are written by many authors with the termination *-re;* as, *center, meter, theater,* etc., which are often, especially in England, written *centre, metre, theatre,* etc. *Acre, chancre, lucre, nacre, massacre,* and *ogre* retain the termination *-re,* to show the hard sound of the *c* and *g.*

§ 32. -id or -ide. There are two classes of chemical words ending respectively in *-id* or *-ide* and *-in* or *-ine,* in regard to which usage has varied. Most of them were formerly written without the final *e;* but in present usage *-ide* is preferred to *-id,* and there is an attempt to establish a technical distinction between *-in* and *-ine.* See -INE and 2d -INE, in the *Vocabulary.* The word *tannin* is always written without the final *e.* *Oxide* is now generally written with the termination *-ide.*

§ 33. -ize or -ise. There is a class of words ending, as pronounced, with the sound of long *i,* followed by *z,* some of which are differently written, by different authors, with either *-ize* or *-ise* to represent this sound: as, *criticize* or *criticise; civilize* or *civilise; naturalize* or *naturalise; patronize* or *patronise.* These words are mostly verbs, and are chiefly derived from Greek words ending in *-izein,* often through the French and Latin (see -IZE, in the *Vocabulary*). There are a few from other sources, but formed in analogy with these. Those derived from Greek words properly have the termination *-ize;* as, *anathematize, baptize, characterize, dramatize, tantalize.* The spelling *exorcise* is, however, in common use. Those formed in an analogous manner from English words are likewise written with *-ize;* as, *albumenize, bastardize, memorize, sensitize.* But those derived from the French verb *prendre* (participle *pris* or *prise*) end in *-ise;* as, *apprise, comprise, emprise, enterprise, surprise.* The following are the principal English verbs ending in *-ise;* namely, *advertise, advise, affranchise, apprise, arise, chastise, circumcise, comprise, compromise, demise, despise, devise, disenfranchise, disfranchise, disguise, emprise, enfranchise, exercise, exorcise, franchise, merchandise, premise, revise, supervise, surmise, surprise.* It may be remarked that most of those in respect to which usage varies are now by most authorities, including the Oxford English Dictionary, written with the termination *-ize,* and that there is a tendency to extend the use of the *-ize* to all analogous terms.

§ 34. mold or mould. The words *mold* and *molt,* and their compounds and derivatives, are written in this Dictionary with o instead of *ou,* in analogy with the words *bold, bolt, colt, gold,* etc., from which the *u* has been dropped. Many authors, however, write these words *mould* and *moult,* and their derivatives in like manner.

§ 35. -or or -our. There is a numerous class of words almost universally written in the United States with the termination *-or,* many of which are also written, esp. in England, with the termination *-our;* as, *candor, favor, honor, labor, rumor, vigor.* English usage, however, is not uniform, many of them being written with -or in English books.

§ 36. -ped or -pede. There is a small class of words ending with the syllable *-ped* (from Lat. *pes, pedis,* foot), the termination of some of which was formerly, and is still frequently, written, *-pede;* as, *biped, centiped, milliped, palmiped, quadruped, soliped,* and the like. The words *biped* and *quadruped* are universally written without the final *e;* and most of the others, according to the best usage, should be written in the same manner. The form *centipede,* however, is the more common: and *velocipede* is practically the only form in use.

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Webster's New International Dictionary, Second Edition, is under great obligations to the following teachers, language scientists, and public speakers, who have furnished information concerning their own pronunciation of hundreds of words by answering questionnaires. In addition to the information given by the consultants named below, there has also been available information from the Special Editors, each of whom has indicated the prevailing pronunciation of all terms in his own field. Also, systematic information has been made available concerning all important terms in Chemistry through the use of questionnaires by a committee of the American Chemical Society, of which Professor E. J. Crane, of Ohio State University, was Chairman, in co-operation with this Dictionary.

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A B C D E F G H I J K L M

A BRIEF HISTORY OF THE ENGLISH LANGUAGE

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LANGUAGES AKIN TO THE ENGLISH

§ 1. **Anglo-Saxon, Teutonic, Indo-European.** The English language is the descendant and representative of the Anglo-Saxon (or Old English). It has lost very much of the inflection, and very many of the words, which belonged to the old language; and, on the other hand, it has borrowed words very largely, to the extent even of half its vocabulary, from other languages, especially the French and the Latin. Yet all the inflections that remain, and most of its formative endings, the pronouns and particles, and, in general, the words which are in most frequent and familiar use, have descended from the Anglo-Saxon. With all its assimilation of foreign elements, it is still a Teutonic language, like the German, Dutch, Swedish, Danish, and others. These, again, make one subfamily (Teutonic or Germanic) in that great family of languages which, as it extends from India westward, and covers nearly the entire area of Europe, is called *Indo-European.* Among all families of kindred tongues, the Indo-European is pre-eminent, both for the perfection of its organic structure, and for the value of its literary monuments. The parent of the whole family, the Indo-European language, has left no such monument of itself; but its forms and roots may be made out, to a great extent, by a scientific comparison of the languages which are descended from it. It is impossible, however, to speak of this language as an historical unit; for our means of investigation do not allow us to get farther back than an indeterminate period in which it seems to have consisted of a group of closely related dialects spoken (perhaps in eastern Europe) by a people (or a group of tribes) of unknown (perhaps mixed) race. These dialects may, for convenience, be collectively designated as the original Indo-European language, — that is, as the parent speech from which all the languages of the Indo-European family are descended. The main branches of the family are the following: —

§ 2. I. **The Indo-Iranian.**

i. **The Indic.** The *Sanskrit* of the four Vedas, the sacred books of the Brahman religion, is more ancient than the common or classical Sanskrit. Even the latter had ceased to be the language of common life as early as the third century before Christ. It was succeeded by the *Prakrit* dialects, one of which, the *Pali*, is the sacred language of the Buddhists in Ceylon, Burma, and Siam. These, in their turn, were succeeded by the modern idioms of Northern and Central Hindustan, — the *Bengali, Marathi, Gujarati,* and others. The *Hindustani* (or *Urdu*), based on *Hindi*, was formed in the camps and courts of the Mohammedan conquerors of India, and is largely intermixed with Persian and Arabic. The widely scattered *Gypsies* speak, with great diversity of dialect, a language which is probably of Indic stock.

ii. **The Iranian.** To this branch belong: 1. The *Old Persian*, which is seen in the cuneiform (or arrow-headed) inscriptions of the Achaemenid kings of the sixth and fifth centuries B.C., Darius, Cyrus, and Artaxerxes. The Modern Persian has lost nearly all the ancient inflection, and with the Mohammedan religion has adopted a multitude of words from the Arabic. An intermediate period, from the fourth century of our era to the tenth, is known as *Middle Persian.* 2. The *Avestan* (often improperly called *Zend*), which is preserved in the Avesta, or sacred books of the Iranians, redacted in the fourth century of our era. 3. Other languages belonging to the Iranian branch are the ancient *Sogdian* and the languages of the *Kurds*, the *Afghans*, and the *Ossetes* (in the Caucasus).

§ 3. II. **The Balto-Slavic.**

i. **The Baltic.** The most important language of this branch is the *Lithuanian*, which has no monuments older than the sixteenth century, but which has preserved in a surprising degree the ancient inflection and structure. To the same stock belong the *Lettish* of Latvia, which is much less ancient in its form, and the *Old Prussian*, which was once spoken on the coast of the Baltic east of the Vistula, but became extinct in the seventeenth century.

ii. **The Slavic** or **Slavonic.** The earliest monument is the incomplete version of the Bible, made in the ninth century, by the Greek missionaries Cyril and Methodius, into the *Old Slavonic* (often called *Church Slavic* or *Slavonic*, or *Old Bulgarian*). The widely diffused Slavic branch may be classified under two principal heads: 1. The *East and South Slavic*, including the *Russian*, the *Ruthenian* (in Galicia), the *Bulgarian*, and the three *Illyrian* idioms, *Serbian, Croatian,* and *Slovenian.* 2. The *West Slavic*, including the *Polish*, the *Czech* or *Bohemian* (with the *Moravian* and *Slovak* dialects), the *Lusatian* or *Wendish*, and the extinct *Polabian.* This classification, however, is not altogether satisfactory.

§ 4. III. **The Thraco-Illyrian.** *Albanian*, the representative of this subfamily, may be a descendant of the ancient Illyrian. It is spoken not only in Albania but in a large part of modern Greece, and there are Albanian colonies in southern Italy, in Sicily, and elsewhere. The earliest monuments of the language date from the fifteenth century, but there was no considerable literature until the last quarter of the nineteenth. *Albanian* has borrowed extensively from other languages, particularly from Latin, and by Latin its structure has been profoundly influenced.

IV. **The Thraco-Phrygian.** The Armenians embraced Christianity very early, and their language has a rich and varied literature which began in the fifth century with translations from Syriac and Greek and some original compositions of an historical character. The *Old* (or classical) *Armenian* survives in ritual and in learned use. *Middle Armenian* is also abundantly represented. Two of the modern dialects (Eastern and Western) have each developed into a literary language in recent times, beginning about the middle of the nineteenth century.

§ 5. V. **The Hellenic** or **Greek.** Of the numerous dialects of *Greek*, the first to receive literary culture was the *Old Ionic*, or *Epic.* This was followed by the *Aeolic*, the *Doric*, the *New Ionic*, and finally the *Attic*, which became at length, though with some change of form, the common language of literature and society. It is represented now by the *Romaic*, or *Modern Greek.*

§ 6. VI. **The Italic.** The most important member of the Italic group is the *Latin.* Closely akin to this were the other Italic languages — the *Oscan, Umbrian*, etc. — in Central Italy. The modern descendants of the Latin are called the *Romance* languages. They include the *Italian*, the *Spanish*, the *Portuguese*, the *Catalan* (eastern coast of Spain, Balearic Islands, etc., and the former county of Roussillon in Southern France), the *Provençal* (of Southern France, used as a literary language in the Middle Ages and to some extent at the present day), and the *French* (originally the popular dialect of Northern France). All these contain a small proportion of Teutonic words, brought in by the barbarian conquerors of the Western Roman Empire. But another Romance language — the *Rumanian* or *Walachian*, spoken in a territory corresponding roughly to the ancient province of Dacia — is largely intermixed with borrowed words, taken chiefly from the neighboring Slavonic tribes. The term *Rhaeto-Romanic* language is applied collectively to several dialects spoken in Tirol, the Grisons (in Switzerland), and Friuli (in the northeast of Italy).

§ 7. VII. **The Celtic.** This subfamily is divided into two branches, *Continental* and *Insular.* The Continental branch includes the *Gaulish*, or ancient languages of Gaul, of which scanty remnants are found in proper names and inscriptions. The Insular Celtic is divided by strongly marked differences into two portions: 1. The *Goidelic* (*Gadhelic*) or *Gaelic*, including the *Irish* (or native language of Ireland), the *Erse* (or Gaelic of the Scottish Highlands), and the *Manx* (the corrupt idiom of the Isle of Man). The last two are little more than dialects of the Irish. 2. The *Brythonic*, including the *Welsh* (the native language of Wales), the *Cornish* (which was spoken in Cornwall, but went out of use in the eighteenth century), and the *Armorican*, or *Bas-Breton* (still spoken in the French province of Brittany, the ancient Armorica). The oldest specimens of the Gaelic (except for a few inscriptions of doubtful date) belong to the seventh century; for the Brythonic, the oldest which are at all copious are three or four centuries later. The Bas-Breton is closely akin to the Welsh, being the language spoken by the descendants of those insular Britons who sought refuge on the Continent at the time of the Anglo-Saxon invasion.

§ 8. VIII. **The Tocharian** or **Tokharian.** This language, of which two dialects are distinguishable, is known from inscriptions and manuscripts recently discovered in Chinese Turkestan, some of which are as early as the seventh century of our era. Tocharian is akin to the European languages of the Indo-European family and shows particular resemblances to the Italic and Celtic branches.

The official language of the Hittite Empire is somehow related to Indo-European, but its position in this regard has not yet been determined (see Hittite in the *Vocabulary*).

§ 9. IX. **The Teutonic** or **Germanic.** Here again the earliest monument is a version of the Bible, made by Ulfilas, an Arian bishop of the fourth century, into his native *Gothic* (or *Moeso-Gothic*), the language spoken at that time by the Goths on the Lower Danube. This work is preserved only in fragments, but these are of considerable extent, and are of inestimable value to the philologist. The Teutonic languages are distinguished as: —

§ 10. 1. **The Gothic** (or **Moeso-Gothic**), almost the only monument of which is the Bible translation of Ulfilas. Some remarkable agreements between Gothic and Scandinavian have caused many scholars to include these two languages in a single class, the *East Germanic.* This classification is now generally abandoned, however, and the Gothic alone is regarded as East Germanic.

§ 11. 2. **The Norse** or **Scandinavian.** The *Old Norse* is also called *Old Icelandic*, as much of its abundant literature (Eddas, Sagas, etc.) was composed in Iceland. The oldest manuscripts in which it is preserved are of the twelfth century; but many of its productions are of earlier origin, going back even to the heathen times of Scandinavia. The modern *Icelandic* has adhered with remarkable fidelity to the forms of the ancient language. But the modern idioms of the Scandinavian mainland, the *Swedish*, the *Danish*, and the *Norwegian*, have undergone extensive changes, and have, like the English, become much simplified in their structure.

§ 12. 3. **The West Germanic,** conveniently divided into *High Germanic* and *Low Germanic.*

I. The *High Germanic* is the language of Upper or Southern Germany. The *Old High German* is seen in Otfrid's Krist, Notker's translation of the Psalms, and other monuments, most of them in verse, from the eighth century to the end of the eleventh. The *Middle High German*, from the twelfth to the fifteenth century, has a rich poetical literature, including the Nibelungen Nôt with its attendant epics, and the lyric poetry of the minnesingers. The *New High German* is the language of Luther's Bible version and of all German literature since the Reformation.

II. The *Low Germanic*, spoken in Northern Germany and the Netherlands. Here belong: (*a*) The *Friesic* or *Frisian*, which was once spoken along the whole northern coast of Germany, from the Elbe westward. Its early monuments consist almost wholly of laws, beginning with the fourteenth century. For a long time it has existed only as a popular idiom, and is now confined to a few small and scattered localities. (*b*) The *Anglo-Saxon* (sometimes called simply *Saxon*, and often known as *Old English*), which in the fifth and sixth centuries was transplanted from Northern Germany to Britain, and has had its subsequent development and history in that island. (*c*) The *Old Saxon*, which was spoken in Northern Germany between the Rhine and the Elbe, south of the narrow seacoast region, which was occupied by the Friesic. It is known almost solely from the Hêliand (*i. e.*, Saviour), a metrical narration of the gospel history, preserved in manuscripts of the ninth and tenth centuries. A considerable portion of the Anglo-Saxon Genesis is derived from an Old Saxon poem preserved in part in a Vatican manuscript. (*d*) The *Old Low Frankish*, the language of the Netherlands in the same period, which was closely allied to the *Old Saxon.* Its modern representatives are: (1) the *Dutch*, or *Netherlandish*, spoken in Holland, and used as a literary language since the last part of the thirteenth century; and (2) the *Flemish*, spoken in Flanders, and often erroneously regarded as a dialect of the Dutch. (*e*) The *Low German*, strictly so called (or *Plattdeutsch*), the idiom of the common people in northern Germany, is the lineal descendant of the Old Saxon. In the fourteenth and fifteenth centuries, it was used as a literary language; but political circumstances, giving ascendancy to the High German, have reduced it to the inferior position of a popular dialect.

LANGUAGES NOT KINDRED TO THE ENGLISH

§ 13. **Finno-Ugric, Altaic, Dravidian, Semitic, Iberian, etc.** The Indo-European family comes in contact with various other families of languages. It is bounded along its northern frontier by the *Finno-Ugric* family, which includes the languages of the Finns, the Lapps, the Magyars (in Hungary), and several other peoples. At various widely separated

ABBREVIATIONS USED IN THIS DICTIONARY

NOTE. Abbreviations like *accus.*, *Bacteriol.*, printed in this list *acc(us).*, *Bact(eriol).*, have sometimes been further shortened by omitting the letters enclosed by the parentheses. Similarly forms like *adj(s).* indicate that both a singular, *adj.*, and a plural, *adjs.*, have been used. For additional abbreviations, see *Abbreviations*, in Appendix; cf., also, *Signs & Symbols*, in Appendix.

a. adjective, are(s), ante (L., before)
A.B. Bachelor of Arts
abbr(s)., *abbrev.* abbreviated, abbreviation(s)
abl. ablative
Abp. Archbishop
A.C. Ante Christum (L., before Christ)
acc(us). accusative
Acous. Acoustics
act. active
Act S. Act of Sederunt
A.D. Anno Domini (L., in the year of our Lord)
adap. adapted
adj(s). adjective(s)
adv. adverb, adverbial
Aeol. Aeolic
AF. Anglo-French
Af., *Afr.* Africa, African
Agr(ic). Agriculture, Agricultural
A.H. Anno Hegirae
Ala. Alabama
Alban. Albanian
Alchem. Alchemy
Alex. Alexander
Alg. Algebra
A.M. Ante Meridiem (L., before noon)
A.M. Master of Arts
Am(er). America, -ican
Amend. Amendment(s)
Anal. Analytic, Analysis
Anat. Anatomy
Anc. Ancient
Anc. R. Ancient Rome
Angl. Anglican, Anglicized
Anglo-Am. Anglo-American
Anglo-Ind. Anglo-Indian
Anglo-Ir. Anglo-Irish
Anglo-Lat. Anglo-Latin
Anglo-Scot. Anglo-Scottish
Anon. Anonymous
ans. answer, answering
ant. antonym
Ant(iq). Antiquity, -ties
Anthol. Anthology
Anthrop(ol). Anthropology
Anthropom. Anthropometry
aor. aorist
A.O.U. American Ornithologists' Union
App. Appeals
App. Appendix
app., *appar.* apparently
App. Div. Appellate Division
Apr. April
aq. aqua (L., water)
Ar. Arabic
Arab. Arabian
Aram. Aramaic
Arch. Architecture
Archaeol. Archaeology
Arg. Rep. Argentine Republic
Arith. Arithmetic
Ariz. Arizona
Ark. Arkansas
Armen. Armenian
art(s). article(s)
Artil. Artillery
AS., *A.-S.* Anglo-Saxon
assoc. associated, association
Assyr. Assyrian
Assyr.-Bab. Assyro-Babylonian
Astrol. Astrology
Astron. Astronomy, astronomical
Athen. Athenian
attrib. attributive, -tively
at. wt. atomic weight
aug. augmentative
Aug. August, Augustus
Austral. Australasia
auxil. auxiliary
Av. Avestan
av. average
av(oir). avoirdupois
A.V. Authorized Version

b. born
B.A. Bachelor of Arts
Bab. Babylonian
Bact(eriol). Bacteriology
bal. balance
Bank. Banking
Bat. Battalion
bbl(s). barrel(s)
B.C. Before Christ
bdls. bundles
bds. boards
Belg. Belgian, Belgium
Beng. Bengali
Benj. Benjamin
Bib. Bible, Biblical, Bibliotheca
Bibliog. Bibliography
Biochem. Biochemistry
Biog. Biography, Biographical (Dict.)
Biogeog. Biogeography
Biol. Biology
Bisc. Biscayan
bitum. bituminous
Bk. Book
B.L. Breech-loading
blk. black
B.L.R. Breech-loading Rifle
Bohem. Bohemian
Bot. Botany, Botanical
Bp. Bishop
bpl. birthplace
Br. British
Braz. Brazilian
Bret. Breton
Brig. Brigade, Brigadier
Brit. Britain, British, Britannica (Encyc.)
B.Sc. Bachelor of Science
B.T.U. British Thermal Unit
bu. bushel(s)
Bulg. Bulgarian
Bull. Bulletin
Burl. Burlesque

c. circa (L., about), caption, capitulum (L., chapter), cent(s), century, cubic
C. Centigrade
Cal. Calendar, Calends
Calif. California
Camb. Cambridge
Can. Canada, -dian
Can. F. Canadian French
Cant. Cantonese
cap(s). capital(s) [initial, or letters]
Capt. Captain
car. carat(s)
Carp. Carpentry
Cartog. Cartography
Cat(al). Catalan
Cath. Catholic
caus. causative
c.c., *cc.* cubic centimeters
Celt. Celtic
Cen. Central
cent. century, centime(s)
centim. centimeter(s)
cf. confer (L., compare)
cg. centigram(s)
C.G.S. centimeter-gram-second
ch(s)., *chap.* chapter(s)
Ch(s). Church(es)
Chald. Chaldean, Chaldee
Chas. Charles
Chem., *chem.* Chemistry, chemical
Chin. Chinese
Chino-Jap. Chino-Japanese
Chr(on). Chronicles
chron(ol). chronological, -ically, chronology
Cic. Cicero
cir. circa (L., about)
circum. circumference
cit. citation
Civ. Civil
Civ. Engin. Civil Engineering
C.J. Chief Justice
cl. clause(s), centiliter(s)
Class. Classical
cm. centimeter(s)
Co. County
Col. Colonel, Colorado, Colossians
Coll. College, Colleges
coll. collective
collat. collateral
colloq. colloquial, -ally
Colo. Colorado
com. commerce, -cial, common
Com. Commander, Commodore
comb. combination
comp. compound, -ed, composition
compar. comparative
Cong. Congregational, Congius
conj. conjunction, conjugation
Conn. Connecticut
Con. Sect. Conic Sections
const. constitution, -tional
constr. constructed
contr. contraction, -tracted, -trasted
contract. contraction
cop. copper
Copt. Coptic
Corn. Cornish, Cornwall
corol. corollary
correl. correlative
corrupt. corruption, -rupted
cos. cosine
cosec. cosecant
Cosmog. Cosmogony
Cr. Credit, -itor
Craniol. Craniology
Craniom. Craniometry
Crim. Criminal
Criminol. Criminology
Crit. Criticism
cryst. crystallized
Cryst(allog). Crystallography
Ct. Court
ct(s). cent(s)
cu., *cub.* cubic
cwt(s). hundredweight(s)
Cyc. Cyclopedia

D. Dutch
d. day, denarius or denarii (L., penny, pence), died
Dan. Danish, Daniel
dat. dative
D. Bib. Douay Bible
D.C. District of Columbia
D.D. Doctor of Divinity
Dec. December, decorative
def(s). definition(s), defined, definite
deg. degrees
Del. Delaware
Den. Denmark
Dent. Dentistry
Dept. Department
der(iv). derivative, derived
Descr. Descriptive
Dial., *dial.* Dialect, dialectal
diam. diameter
Dict. Dictionary
Diet. Dietetics
diff. different
dim. diminutive, diminution
Disp. Dispensatory, Disputations
Dist. District
dist(ing). distinguished
Div. Division
div. divided, dividend, divisor
do. ditto (L., the same)
dol(s). dollar(s)
dom. domestic
Dor. Doric
doub. double
doz. dozen
Dr. Debit, Debtor, Doctor
dr. dram
Dram. Dramatic
Du. Dutch
Dup. Duplicate
dwt. pennyweight(s)
Dyn. Dynamics

E. English, East, Eastern, Episcopal
East. Eastern
Eccl(es). Ecclesiastical
Ecl. Eclogues
Econ. Economics
Ed., *Edw.* Edward
Educ. Education
EFris. East Frisian
e.g. exempli gratia (L., for example)
Egypt. Egyptian
Egyptol. Egyptology
Elec. Electric, -trical, -tricity
Electrometal. Electrometallurgy
Eliz. Elizabeth, -bethan
Embryol. Embryology
e.m.f. electromotive force
emph. emphasis, emphatic
Encyc. Encyclopedia
Eng. England, English, Engraving
Engin. Engineering
Entom. Entomology
Eol. Eolic
Epis., *Episc.* Episcopal
Eq. Equity
equiv(s). equivalent(s)
erron. erroneous, -ously
Esk. Eskimo
esp. especially
estab. establishment
etc. et cetera (L., and so forth)
Etch. Etching
Eth. Ethiopic
Ethnog. Ethnography
Ethnol. Ethnology
ety., *etym.*, *etymol.* etymology, etymologically
Ex., *Exchеq.* Exchequer
exc. except
Exch. Exchange
exclam. exclamation

f. feminine
F., *Fahr.* Fahrenheit
F., *Fr.* French
Far. Farriery
Feb. February
fem. feminine
Feud. Feudal
ff. following
fig. figurative, figuratively
Fig(s)., *fig(s).* Figure(s)
Fin. Finance
Finn. Finnish
fl. flourished, fluid
Fla. Florida
Flem. Flemish
For. Foreign
Fort(if). Fortification
fr. from
Frag. Fragments
Fr. Amer. French American
Fredk. Frederick
freq. frequentative
Fri. Friday
Fris. Frisian
ft. foot, feet
Furn. Furniture
fut. future

G. German, George
g. gram, grams
Ga. Georgia
Gael. Gaelic
gal. gallon(s)
Gallo-Lat. Gallo-Latin
Galv. Galvanism
Gaz. Gazetteer
Gen. General
gen. genitive, generally
Geneal. Genealogy
Gent. Gentleman
Geo. George
Geod. Geodesy
Geog. Geography
Geol. Geology
Geom. Geometry
Ger. German, Germany
Ger. E. Afr. German East Africa
Gloss. Glossary
Goth. Gothic
Gov(t). Government
Gr. Greek
gr. grain(s)
Gram. Grammar
Gr. Brit., *Gt. Br.* Great Britain
Gun. Gunnery

h. hour(s)
ha. hectare(s)
Heb. Hebrew(s)
Hen. Henry
Her. Heraldry
HG. High German
Hind. Hindustani
Hist. Historical, History
hl. hectoliter(s)
H.M. His (or Her) Majesty (or Majesty's)
H. of L. House of Lords
Homeop. Homeopathy
Homer. Homeric
Horol. Horology
Hort. Horticulture
h.p. horsepower
hr. hour(s)
Hung. Hungarian
Hunt. Hunting
Hydr(aul). Hydraulic(s)
Hydro(s). Hydrostatics
Hydrodyn. Hydrodynamics
Hydrog. Hydrography
Hymnol. Hymnology
hypoth. hypothetical, hypothesis

I. Iowa, Island, Islands, Isle
Ia. Iowa
Icel. Icelandic
id. idem (L., the same)
i.e. id est (L., that is)
Ill. Illinois
Illit. Illiterate
illust. illustrated
Illust(s)., *illust(s).* Illustration(s)
Immunol. Immunology
imp. imperial, imperfect (tense)
imper. imperative
impers. impersonal
improp. improper
in. inch(es)
incho. inchoate, -ative
ind. independent
Ind. India, Indian, Indiana
ind(ic). indicative
indef. indefinite
Indo-Ch. Indo-China
inf., *infin.* infinitive
Inorg. Inorganic
Ins. Insurance
inst. instant
intens. intensive
inter. interrogation
interj. interjection
Internat., *Int(er).* International
interrog. interrogatory, -tive
Introd. Introduction
Ion. Ionic
Ir. Irish, Ireland
Iran. Iranian
Ire., *Irel.* Ireland
irreg. irregular, -ly
Isl(s)., *isl(s).* Island(s)
It. Italian
ital. italics

Jan. January
Jap. Japanese
Jas. James
Jav. Javanese
Jew. Jewish
Join. Joinery
Jup. Jupiter

Kans. Kansas
kg. kilogram(s)
km. kilometer(s)
Ky. Kentucky

L. Late, Low
l. liter(s)
L., *Lat.* Latin
La. Louisiana
lat. latitude
Lat. Pros. Latin Prosody
lb(s). pound(s)
l.c. lower case [small letters (word or initial) not capitals]
Lett. Lettish
LG. Low German
LGr. Late Greek
LHeb. Late Hebrew
Lieut. Lieutenant
ling. linguistic, linguistics
liq. liquid
Lit. Literature
lit. literal, -ally
Lith. Lithuanian
Lithog. Lithography
LL. Late Latin
log. logarithm
Log. Logic
long. longitude
lubric. lubricant

M. Middle, Medieval, Meridiem (L., noon), Methodist, Monsieur
m. masculine, meter(s), minute(s)
Maced. Macedonian
Mach. Machinery
Mad. Madam
Mag. Magazine
Man. Manège

Abbreviation	Meaning
Manuf.	Manufacture, -turing
Mar.	Maritime, March
marg.	margin, -ginal
masc.	masculine
Mass.	Massachusetts
Math.	Mathematical, -matician, -matics
MBret.	Middle Breton
M.C.	Mennonite Church
MD.	Middle Dutch
M.D.	Medicinae Doctor (L., doctor of medicine)
Md.	Maryland
Me.	Maine
ME.	Middle English
meas.	measure
Mech.	Mechanical, Mechanics
M.E.Ch.	Methodist Episcopal Church
Med.	Medicine, Medical
mem.	memorandum
Mer.	Mercury
Merc.	Mercantile
Metal.	Metallurgy
Metaph.	Metaphysics
Meteor(ol).	Meteorology
Meth.	Methodist
Mex.	Mexico, Mexican
MF.	Middle French
Mfg., mfg.	Manufacturing
MFlem.	Middle Flemish
mfr.	manufacture
mg.	milligram(s)
MGr.	Medieval Greek
MHG.	Middle High German
mi.	mile(s)
Mich.	Michigan
Micrometal.	Micrometallurgy
Micros.	Microscopy
Mid.	Middle
Mil.	Military
Mil. Min.	Military Mining
min.	minutes, mining
Mineral.	Mineralogy, Mineralogical
Minn.	Minnesota
MIr.	Middle Irish
mistrans.	mistranslation
ML.	Medieval Latin
ml.	milliliter(s)
MLG.	Middle Low German
Mlle.	Mademoiselle
MM.	Messieurs
mm.	millimeter(s)
Mme.	Madame
Mo.	Missouri
mod.	modern, modulus
Moham.	Mohammedan
Mon.	Monday
Mons.	Monsignor
Mont.	Montana
M.P.	Melting Point
Mr.	Mister
Mrs.	Mistress
MS(S).	Manuscript(s)
Mt(s).	Mount, Mountain(s)
Mus.	Music
MW.	Middle Welsh
Myth(ol).	Mythology
N.	New, North
n.	noun
Nap. Log.	Napierian Logarithm
nat.	natural
Nat. Hist.	Natural History
Naut.	Nautical
Nav.	Navy, Naval
Navig.	Navigation
N.C.	North Carolina
N. Dak.	North Dakota
N.E.	Northeast, New England
Nebr.	Nebraska
Nep.	Neptune
Neth.	Netherlands
neut.	neuter
Nev.	Nevada
New Eng.	New England
NF.	New French
NGr.	New Greek
N.H.	New Hampshire
NHeb.	New Hebrew, Neo-Hebraic
N.J.	New Jersey
NL.	New Latin
N. Mex.	New Mexico
No., no.	North, number
N. of Eng.	North of England
nom.	nominative
Nor.	Norway, Norwegian
Norm.	Norman
Norm. F.	Norman French
North.	Northern
Nov.	November
NPr.	New Provençal
N.S.	New Style, Nova Scotia
N.S.W.	New South Wales
N.T.	New Testament
Numis.	Numismatics
N.W.	Northwest
N.Y.	New York
N.Z.	New Zealand
O.	Old, Oxygen, Ohio
obj.	objective
Obs., obs.	Obsolete
Obsoles.	Obsolescent
OBulg.	Old Bulgarian
occas.	occasionally
occult.	occultism
Oceanog.	Oceanography
OCelt.	Old Celtic
Oct.	October
Od.	Odae
OD.	Old Dutch
ODan.	Old Danish
OE., O.E.	Old English
OF.	Old French
OFlem.	Old Flemish
OFris.	Old Frisian
OFrk.	Old Frankish
OG.	Old German
OGael.	Old Gaelic
OGr.	Old Greek
OHG.	Old High German
OIr.	Old Irish
OIt.	Old Italian
Okla.	Oklahoma
OL.	Old Latin
OLG.	Old Low German
ON.	Old Norse
ONF.	Old North French
ONor.	Old Norwegian
op. cit.	opere citato (L., in the work quoted)
OPer.	Old Persian
OPg.	Old Portuguese
OPol.	Old Polish
opp.	opposed, opposite
OPr.	Old Provençal
OPruss.	Old Prussian
Ophth.	Ophthalmology
Opt. Mineral.	Optical Mineralogy
Ord.	Order, Ordnance
Ordn.	Ordnance
Ore., Oreg.	Oregon
Org. Chem.	Organic Chemistry
orig.	original, -nally
Ork.	Orkney
Ornith.	Ornithology
OS.	Old Saxon
O.S.	Old Style
OSlav.	Old Slavic
OSp.	Old Spanish
OSw.	Old Swedish
O.T.	Old Testament
OW.	Old Welsh
Oxf.	Oxford
Oxf. E. D.	Oxford English Dictionary
oz.	ounce(s)
p.	page, participle, person
P.	Protestant
Pa.	Pennsylvania
p.a.	participial adjective
Paleethnol.	Paleethnology
Paleobot.	Paleobotany
Paleog.	Paleography
Paleontol.	Paleontology
par.	paragraph
Parl.	Parliament, Parliamentary
part.	participial, participle
part. adj.	participial adjective
pass.	passive
Pat., pat.	Patent, patented
Pek.	Pekingese
Penol.	Penology
Per.	Persian
perf.	perfect
perh.	perhaps
pers.	person
Persp.	Perspective
pert.	pertaining
Peruv.	Peruvian
Petrog.	Petrography
Petrol.	Petrology
pfg.	pfennig
Pg.	Portuguese
Pharm.	Pharmacopoeia, Pharmacy
Ph.D.	Doctor of Philosophy
Phila.	Philadelphia
Phil. I., P.I.	Philippine Islands
Philol.	Philology
Philos.	Philosophy
Phil. Sp.	Philippine Spanish
Phonet.	Phonetics
Phonog.	Phonography
Phot., Photog.	Photography
Photoeng.	Photoengraving
Photom.	Photometry
Phren., Phrenol.	Phrenology
Phys.	Physics, Physical
Phys. Geog.	Physical Geography
Physical Chem.	Physical Chemistry
Physiog.	Physiography
Physiol.	Physiology
Phys. Sci.	Physical Science
Phytogeog.	Phytogeography
piast.	piaster
pk.	peck(s)
pl(s).	plural(s)
Plin.	Pliny
Plumb.	Plumbing
plup.	pluperfect
P.M.	Post Meridiem (L., afternoon)
Poet.	Poetic, -ical
Pol.	Polish
Pol(it).	Political, politics
Pol. Econ.	Political Economy
poss.	possessive
pp.	pages
p.p.	participle past
p. pr.	participle present
pr.	present
Pr.	Provençal
P.R.	Puerto Rico
Prac.	Practice
pred.	predicate
Pref.	Preface
pref.	prefix
prep.	preposition
pres.	present
Pres.	President
pret.	preterit
prin.	principal, -pally
Print.	Printing
priv.	private, privative
prob.	probably
Proc.	Procedure
Prof.	Professor
pron.	pronoun, pronounced, pronunciation
pron'd.	pronounced
pronom.	pronominal
prop.	proper, -erly
Pros.	Prosody
Prot.	Protestant
Prot. Episc.	Protestant Episcopal
prov.	province
Prov.	Proverb(s)
Psychol.	Psychology
Psychopathol.	Psychopathology
pt(s).	pint(s), part(s)
pub.	published
Punct.	Punctuation
Pyroelec(t).	Pyroelectricity
Pyrotech.	Pyrotechnics
qt.	quart(s)
q.v.	quod vide (L., which see)
R.	Rare
r.	rule
rad.	radius, radial
Railroad.	Railroading
R.C.	Roman Catholic
R.C.Ch.	Roman Catholic Church
redupl.	reduplication
ref.	reference
refl., reflex.	reflexive
Refrig.	Refrigeration
Ref. Sp.	Reformed Spelling
Reg.	Regina (L., Queen)
Reg(s).	Regulations
rel.	relative
Relig.	Religion
Rep.	Republic
Rep., Rept(s).	Report(s)
Rev.	Revenue, Reverend, Review, Revised
Rhet.	Rhetoric, -ical
R.I.	Rhode Island
Rich.	Richard
Rom.	Roman
Rom. Cath.	Roman Catholic
Rpts.	Reports
R.R.	Railroad
R.S., R.Sp.	Reformed Spelling
Rum.	Rumanian
Russ.	Russian
R.V.	Revised Version
S.	South, Santo (It., Saint, *masc.*)
s.	section, shilling(s), second(s), statute
S. Afr.	South Africa
S. Afr. D.	South African Dutch
S. Amer.	South American
Sat.	Saturday
Sat.	Satires, Saturn
Sax.	Saxon
Sc.	Scottish, Scotland
sc.	scilicet (L., understood), scene
S.C.	South Carolina, Supreme Court
Scand.	Scandinavian
Schol.	Scholastic, Scholasticism
Sci.	Science
Scot.	Scottish, Scotch, Scotland
Script.	Scripture, -tural
Sculp.	Sculpture
S. Dak.	South Dakota
S.E.	Southeast
sec(s)., sect.	section(s)
Sec., Secy.	Secretary
Seismol.	Seismology
Sem.	Semitic
Sept.	September
seq.	sequente (L., following)
Serb.	Serbian
Shet.	Shetland
shil.	shilling
sil.	silver
sin.	sine
sing.	singular
Skr.	Sanskrit
Slav.	Slavonic
So.	South
Sociol.	Sociology
South.	Southern
sp.	species
Sp., Span.	Spanish
specif.	specifically
sp. gr.	specific gravity
Sport.	Sporting
sq.	square
ss.	sections
SS.	Santi (It., Saints)
St.	Saint
st(at).	statute(s)
Sta.	States, Santa (It., Saint, *fem.*)
Stat.	Statuary
sub.	substitute
subj.	subjunctive
suff.	suffix
Sun.	Sunday
superl.	superlative
Surg.	Surgery
Surv.	Surveying
Sw.	Swedish
S.W.	Southwest
Switz.	Switzerland
S.W.U.S.	Southwestern United States
symbol.	symbolic
syn.	synonym(s), synonymous
Synop.	Synopsis
Syr.	Syriac
T.	Temple
Tag.	Tagalog
tan.	tangent
Tart.	Tartaric
Tech.	Technical, Technology
Technol.	Technology, Technological
Teleg(r).	Telegraphy
Teleph.	Telephony
Tenn.	Tennessee
Ter(r).	Territory
Terat(ol).	Teratology
term.	termination, terminus
Test.	Testament
Teut.	Teutonic
Tex.	Texas
Th.	Thomas
Theat.	Theatrical
Theol.	Theology
Theos.	Theosophy
Therap.	Therapeutics
Thermochem.	Thermochemistry
Thermodyn.	Thermodynamics
Thos.	Thomas
Thurs.	Thursday
Topog.	Topography, Topographically
tr., trans(l).	translated, translation
translit.	transliteration
Treas.	Treasury
Trig.	Trigonometry
Tues.	Tuesday
Turk.	Turkish
Typog.	Typography, -graphically
ult.	ultimo, ultimate, ultimately
uncert.	uncertain
Univ(s).	University, Universities
Uran.	Uranus
U.S.	United States
U.S.A.	United States of America, United States Army
U.S.N.	United States Navy
U.S.S.	United States Ship
U.S.S.R.	Union Soviet Socialist Republics
v.	verb, versus
Va.	Virginia
var.	variable, variant, variety
var(s).	variant(s)
vb. n.	verbal noun
vec.	vector
vel.	vellon
Ven.	Venus
Ver.	Version
Vet(er).	Veterinary
v. i.	verb, intransitive
Vict.	Victoria
viz.	videlicet (L., namely)
VL.	Vulgar Latin
v. neut.	verb neuter
voc.	vocative
Vocab.	Vocabulary
vol(s).	volume(s)
vs.	versus
v. t.	verb transitive
Vt.	Vermont
W.	Welsh, West
Wal.	Wallachian
Wall.	Walloon
Wash.	Washington
Wed.	Wednesday
West.	Western
wh.	which
Will., Wm.	William
W. Ind.	West Indies
Wis.	Wisconsin
W. Va.	West Virginia
Wyo.	Wyoming
yd(s).	yard(s)
Zoogeog.	Zoogeography
Zool.	Zoology
&	and
1st	First
2d	Second
3d	Third
4th	Fourth
5th	Fifth
6th	Sixth
7th	Seventh
8th	Eighth
9th	Ninth

EXPLANATORY NOTES

The reader who wishes to know the meaning of any arrangement or convention in the Dictionary will find, in the center column, a similar arrangement or convention. From this is drawn a red line to the margin, where a reference is found to the Explanatory Note or Notes that answer the query. For example, the *centered period* between syllables is found, ringed in red, in the fifth entry, with the red line leading to the marginal note, "Centered Period between Syllables. See 4, 9." Parentheses (Pronunciation) are explained under CANCROID, below; Square Brackets (Etymology), under CASSIE; etc.

Vocabulary Entry. See 1–8.

Hyphened Word. See 1.

Centered Period between Syllables. See 4, 9.

Alternative Spellings. See 7.

Primary Accent: ′ Secondary Accent: ′ See 2, 9.

Pronunciation. See 9–16.

Pronunciation Key Line. See 10.

Alternative Pronunciations. See 11.

Reference Number to Pronunciation. See 12–13.

Part of Pronunciation Omitted. See 14.

Pronunciation Omitted. See 15.

Part of Speech. See 17–23.

Verb Transitive and Intransitive. See 21–23.

Verb Transitive and Intransitive. See 23.

Inflectional Forms. See 24–32.

Etymology. See 33–42.

Chinese Tone. See 40.

Etymology Cross References. See 42.

Definition. See 43–54.

Definition with Separate Meanings Numbered. See 44.

Definition with Separate Meanings Lettered. See 45.

Technical and Scientific Meanings in Alphabetic Order of Labels. See 46.

Roman Numbers indicating a Group of Meanings. See 47.

ca′ble·gram (kā′b′l·grăm), *n.* [*cable* + *-gram.*] A message sent by a submarine telegraphic cable.
Ca′ia·phas (kā′yȧ·făs; kī′ȧ·făs), *n.* [Gr. *Kaiaphas.*] A high priest of the Jews who presided at the trial of Jesus.
Cain′-col′ored (kān′kŭl′ẽrd), *adj.* Red or reddish-yellow; — Cain's hair and beard were reputed to be of this color.
‖**ca′la·bo′zo** (kä′lä·bō′thō; -sō), *n.; pl.* -zos (*Sp.* -thōs, -sos; *E.* -sōz). [Sp.] **1.** A jail.
cal′a·ite (kăl′â·īt), *n.* *Mineral.* Turquoise. *Obs.*
cam′ass (kăm′ăs), *n.; pl.* CAMASSES (-ĕz; -ĭz; 119). Also **cam′as, cam′mas, quam′ash** (kwŏm′ăsh). Any American plant of the genus *Quamasia*, esp. *Q. quamash.*
cam′bi·um (kăm′bĭ·ŭm), *n.* [LL., exchange. See CAMBIAL.] **1.** Exchange or barter; also, a place of exchange. *Obs.* **2.** *Bot.* A soft formative tissue which gives rise to new tissues in the stems and roots of shrubs and trees.
camp′mas′ter (kămp′mȧs′tẽr), *n.* In the 16th and 17th centuries, a military officer corresponding to a colonel.
can′croid (kăng′kroid), *adj.* **1.** *Zool.* Resembling a crab. **2.** *Med.* Like a cancer; as, a *cancroid* tumor.
cane·ol′o·gy (kān·ŏl′ō·jĭ), *n.* [*cane* + *-ology.*] Science of beating or punishing with a cane. *Humorous.*
ca′nine (kā′nīn; kȧ·nīn′; *or, esp. Brit.*, kăn′īn; 277), *adj.* **1.** Of or pertaining to dogs; having the nature of a dog.
can′na (kȧn′nȧ), *v.* Cannot. *Scot.* & *Dial. Eng.*
can′net (kăn′ĕt), *n.* Also **ca·nette′** (kȧ·nĕt′). [F. *canette*, dim. of *cane* duck.] *Her.* A representation of a duck without feet or bill, used as a bearing. Cf. MERLETTE.
can′ter (kăn′tẽr), *n.* A gait resembling the gallop, but with moderate and easy bounds or leaps. See GAIT, *n.*, 3.
cant file. See 4th FILE, 1.
can·thar′i·din (kăn·thăr′ĭ·dĭn), *n.* *Chem.* A crystalline solid, $C_{10}H_{12}O_4$, the active vesicating principle of the cantharis.
can·thar′i·dism (-dĭz′m), *n.* *Med.* A morbid condition due to excessive use of cantharides.
can′ti·le′ver (kăn′tĭ·lē′vẽr; -lĕv′ẽr; 277), *n.* A projecting beam or member supported only at one end.
can′ti·le′ver, *v. t.* *Engin.* To build or project as a cantilever.
can′ton blue. Holland blue.
ca·pac′i·ty (kȧ·păs′ĭ·tĭ), *n.*; *pl.* -TIES (-tĭz). **1. a** Power of receiving, containing, or absorbing; as, a *capacity* of happiness. **b** Extent of room or space; content; specif., cubic content; volume.
Syn. — Space; power, strength; aptitude, faculty; fitness, skill, talent. — CAPACITY, CAPABILITY. CAPACITY (see ABILITY) refers primarily to the receptive powers; CAPABILITY more frequently implies competence or qualification for some active exercise of power; as, a student of good natural *capacity*; as an officer he showed great *capability*. Cf. ABLE.
Ant. — See INABILITY.
cap′i·tal·ize (kăp′ĭ·tăl·īz *or*, *esp. Brit.*, kȧ·pĭt′ȧ·līz), *v.*; -IZED (-īzd); -IZ′ING (-īz′ĭng). *Transitive:* **1.** To convert into capital, or to use as capital. — *Intransitive:* **1.** To accumulate capital.
cap′tain (kăp′tĭn), *v. t.* To act as captain of; to lead as captain. — *v. i.* To play the captain.
cap′ti·vat′ing (-vāt′ĭng), *adj.* That captivates; charming; winning; as, *captivating* smiles. — **cap′ti·vat′ing·ly**, *adv.*
ca·ran′goid (kȧ·răng′goid), *adj.* [See -OID.] *Zool.* Like or pert. to the Carangidae. — *n.* One of the Carangidae.
ca·reer′, *v.*; CA·REERED′ (kȧ·rērd′); CA·REER′ING. *Intransitive:* To move or run rapidly; to gallop.
cas′sie, cas′sy (kăs′ĭ), *n.*; *pl.* CASSIES (-ĭz). [Icel. *kass* case, creel; cf. Nor. dial. *kase* osier basket.] A kind of basket of twisted straw. *Scot.*
celled (sĕld), *adj.* Having or containing a cell or cells. Combinations, denoting *having* (so many or such) *cells*, are:

few-celled	**muscle-celled**	**short-celled**
full-celled	**narrow-celled**	**single-celled**
large-celled	**nerve-celled**	**small-celled**

ching (chĭng), *n.* [Chin. (Pek.) *ch′ing*¹ azure.] A color, blue in hue, of very high saturation and low brilliance. Cf. COLOR.
chlo′ro·a·ce′tic (-ȧ·sē′tĭk; -sĕt′ĭk), *adj.* *Chem.* Pertaining to or designating any of three crystalline acids called respectively ***monochloroacetic, dichloroacetic***, and ***trichloroacetic acids***, all stronger than acetic acid.
cir′cle (sûr′k′l), *n.* [ME. *cercle*, fr. OF. *cercle*, fr. L. *circulus*, dim. of *circus* circle; akin to Gr. *krikos*, *kirkos*, circle, ring. Cf. CIRCULATE, CIRCUS, CIRCUM-.] **1.** A closed plane curve such that all of its points are equidistant from a point within called the *center*.
2. A halo, as around the moon.
3. Of a heavenly body: **a** Formerly, the sphere in which it supposedly revolved; now, the orbit; also, the period of revolution. **b** The sphere or orb.
4. Something having a circular form; as: **a** A ring or circlet. **b** A crown; diadem. **c** A circular group of persons.
11. *Archaeol.* A group of stones in a ring, as at Stonehenge.
12. *Astron.* An instrument of observation, the graduated limb of which consists of an entire circle.
13. *Bookbinding.* See ROLL, *n.*
14. *Gymnastics.* Any feat or exercise in which the body or a part of it describes a circle.
clo′ver (klō′vẽr), *n.* [ME. *clover*, *claver*, fr. AS. *clāfre*, *clǣfre.*] Any plant of the genus *Trifolium*.
— ***in clover.*** In prosperity or pleasant circumstances.
club (klŭb), n. [ME. *clubbe*, fr. ON. *klubba*. See CLUMP.]
I. A heavy hand weapon or similarly shaped object.
1. A heavy staff of wood, usually tapering, and wielded with the hand as a cudgel; as, felled by a giant's *club*.
coat of mail. A hauberk; a defensive garment of metal scales or chain mail (which see).
come about. To come to pass, as in due course; to attain fulfillment; to arrive; also, to occur or happen.
comic strip. A strip of consecutive drawings in panels, as in newspapers, presenting a comic or humorous adventure.
compass dial. A small pocket sundial fitted with a compass needle by which the gnomon may be adjusted to tell the hour of the day.

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com′pa·rate, *n.* A thing compared. *Obs.*
com′pa·ra′tion (kŏm′pȧ·rā′shŭn), *n.* [L. *comparatio.*] Comparison. *Obs.*
com·par′a·tiv. Comparative. *Ref. Sp.*
com·par′o·scope (kŏm·păr′ō·skōp), *n.* Var. of COMPARASCOPE.
com′part·men′tal·ize, *v. t.* See -IZE.
com·part′ment·ize, *v. t.* See -IZE.
com·part′ner, *n.* = COPARTNER. *Obs.* — **com·part′ner·ship**, *n.*

Proper Nouns Capitalized. See 48.

Foreign Words with Bars. See 52.

Obsolete Words. See 54.

Obsolete Meanings. See 54, 57.

Label. See 55–58.

Subject Label. See 56.

Usage Label. See 57.

Geographical Label. See 58.

Cross Reference. See 59–62.

Cross Reference to Numbered Word. See 60–62.

Synonyms. See 63.

Synonyms: Commas and Semicolons. See 63.

Antonyms. See 65.

Run-on Entry. See 66–67.

Run-on Entry. See 67.

List of Self-explanatory Combinations. See 68.

Run-in Entry. See 69.

Prepositional Phrase. See 70–71.

Noun and Phrase. See 72.

Verb Phrase. See 73.

Adjective Phrase. See 74.

Noun-and-Noun Phrase. See 75.

Lower Section of the Page. See 76.

EXPLANATORY NOTES

In Webster's New International Dictionary, Second Edition, the consultant will find answers to all questions, not only about meanings, but also about spelling, hyphenation, preferred forms, the part of speech to which a word belongs, pronunciation, etymology, synonyms, and multitudes of other problems.

A careful reading of the following Explanatory Notes will enable the reader to find answers easily and quickly, and to understand fully the facts and circumstances brought out by the different kinds of type, the labels, the punctuation, the symbols, and all the other conventions that make fullness and compactness possible in this Dictionary.

The topics discussed in these Explanatory Notes include the different parts of the typical paragraphed vocabulary entry and various other matters having to do with the arrangement of the book, as follows:

I. Vocabulary Entry
II. Pronunciation
III. Part of Speech
IV. Inflectional Forms
V. Etymology
VI. Definition
VII. Labels
VIII. Cross References
IX. Synonymy
X. Run-on Entries
XI. Lists of Combinations and Phrases
XII. Run-in Entries
XIII. Prepositional Phrases
XIV. Verb Phrases
XV. Adjective-and-Noun Phrases
XVI. Noun-and-Noun Phrases
XVII. The Lower Section of the Page

I. The Vocabulary Entry

1. The *Vocabulary Entry* (the term to be defined) is printed in heavy-faced type. The spelling, accent, syllable division, variant forms, hyphenation, and capitalization, are shown in the entry.

ac·knowl′edg·ment, ac·knowl′edge·ment
a·e′ri·al, a·ë′ri·al
Chris′tian
cit′y–state′
to·day′, to–day′

2. Between each syllable and the following syllable there is either an accent [′ or ′] or a centered period [·]. For the principles governing the syllabic division of words in writing or print, see *Pronunciation*, p. lviii f.

ad′a·man′tine, can′o·py

3. A heavy accent [′] following a syllable means a primary accent on that syllable.

ad·mon′ish (ăd·mŏn′ĭsh)

A light accent [′] means a secondary accent.

ac′cu·sa′tion (ăk′ū·zā′shŭn)

4. A centered period [·] marks the end of a syllable — the point where a word should be divided at the end of a line in writing or printing.

ge·og′ra·phy, a·pos′tro·phe

5. An accent alone (without a centered period) also marks the end of a syllable. In hyphenated words, the hyphen marks a syllabic division of the word.

cen′tral
cob′web′by
shiv′er·ing
co–op′er·ate
an′ti–Gal′li·can

6. The syllabic division of foreign words (Latin, French, German, Greek, etc.) sometimes differs in principle from the division of similar Anglicized words. See *Pronunciation*, §§ 269–276.

‖ca′me·lot′ (kȧm′lō′)
É′mi′nence′ Grise′, l′
Mi′san′thrope′, Le

7. Alternative spellings or forms are all given in the same heavy-faced type.

col′or, col′our
can′ta·loupe, can′ta·loup

8. When the different spellings or forms are separated by a comma, they are of equal validity, or the first is only slightly preferable. When the first spelling or form is followed by a period, and the second form is introduced with the word "Also," the first form is distinctly preferable.

a·brax′as. Also **ab′ra·sax.**

II. The Pronunciation

9. The *Pronunciation* is given, between parentheses, in the Webster phonetic alphabet. Inside the parentheses, syllables are separated with a centered period [·]; the primary accent is indicated by a heavy accent mark [′]; the secondary accent by a light mark [′].

a·base′ment (ȧ·bās′mĕnt)
ac′cu·sa′tion (ăk′ū·zā′shŭn)

10. The Key to the pronunciation characters in this alphabet is printed at the bottom of every open pair of pages. This Key shows the letter, with the diacritical mark, in a key word (in which the letter is pronounced with the sign indicated). For example, the pronunciation of **a·mel′io·rate** (ȧ·mēl′yô·rāt) is to be read, in connection with the key line: ȧ as in sofȧ; ē as in ēve; ô as in ôbey; ā as in āle.

11. Alternative pronunciations are given whenever two or more well-supported pronunciations are in use among educated speakers: **al′tern·ate** (ôl′tẽr·nĭt; ăl′-; ôl·tûr′nĭt; ăl-), *adj.;* or whenever the prevailing pronunciation differs in different parts of the English-speaking world: **sched′ule** (skĕd′ūl; *Brit.* shĕd′ūl). In the former case, there is usually at least a slight preponderance of evidence in favor of the first pronunciation, which may be regarded as the preferred form.

12. Pronunciations are frequently followed, inside the parentheses, by a number: **ac·cost′** (ă·kŏst′; 185); **ac·cred′it·ed** (-ĭ·tĕd; -ĭ·tĭd; 119). The number refers to one of the numbered sections of *Pronunciation* in the Introduction, where much additional information is given regarding the pronunciation of the word or the group of words to which it belongs.

13. If the number 277 is given, the word appears in the list on pages lx–lxxvii, with the various pronunciations given by seven important dictionaries — four American and three British (Webster, Oxford, Jones, Wyld, Century, Funk & Wagnalls, and Hempl).

ad′ept (ăd′ĕpt; ă·dĕpt′; 277), *n.*

14. When only part of the pronunciation is given, the remainder is the same as in the corresponding part of the last preceding pronunciation.

ag′gre·ga′tive (ăg′rê·gā′tĭv)
ag′gre·ga′tor (-gā′tẽr)
ga′gre·ga·to′ry (-gȧ·tō′rĭ; -tẽr·ĭ)

15. When no pronunciation is given and the vocabulary entry is spelled the same as the preceding entry, the whole word is pronounced identically with the last pronounced word.

bar′rel (băr′ĕl), *n.*
bar′rel, *v. t.*
ag′ate (ăg′ĭt; -ȧt; 277), *n.*
ag′ate, *adj.*

Note: — Most two-word or three-word entries have no pronunciation given (**barn dance**).

16. The position of the syllable division sometimes differs in the phonetic respelling from that of the heavy-faced entry, because, in the heavy-faced entry, the division is according to printers' usage; in the phonetic respelling, the division is according to syllable division in the spoken language.

bat′ter (băt′ẽr); **dou′ble** (dŭb′'l); **lus′cious** (lŭsh′ŭs)

A B C D E F G H I J K L M

III. The Part of Speech

17. The name of the *Part of Speech*, in italic type, follows the entry (or the pronunciation whenever the latter is given), except when the entry consists of two or more separate words: **baking**, *n.*; but: **baking powder.** In the latter case, the entry is not strictly a part of speech, save in a few such instances as NEW ENGLANDER (which is a noun).

18. The *Part of Speech* is given as an italic abbreviation, *n.* for *noun*, *v.* for *verb*, *v. t.* for *verb transitive*, *v. i.* for *verb intransitive*, *adj.* for *adjective*, *adv.* for *adverb*, *pron.* for *pronoun*, *prep.* for *preposition*, *conj.* for *conjunction*, and *interj.* for *interjection.*

ag′gre·gate, *adj.*
ag′gre·gate, *v.*
ag′gre·gate, *n.*

19. Other terms of the same kind are *verbal n.* for *verbal noun*, *past part.* for *past participle*, *pres. part.* for *present participle*, *part. adj.* for *participial adjective*, *imper.* for *imperative*, *gen.* for *genitive*.

20. Occasionally the same entry is labeled as belonging to two or more parts of speech.

a·go′, *adj. & adv.*
Cam′bric, *adj. & n.*

21. If a verb is both transitive and intransitive and has more than one meaning, it is labeled *v.*, and the *Transitive* and *Intransitive* meanings are given separately under those headings.

oc·clude′ (ŏ·klōōd′; 242), *v.* *Transitive:* **1.** To shut up; to close or obstruct.
. . . .
4. *Dent.* To bring upper and lower teeth into occlusal relations.
——, *Intransitive: Dent.* To close with the cusps fitting together, as upper and lower teeth.

22. If a verb has the same meaning and the same definition or definitions for both transitive and intransitive, the label is *v. t. & i.*, for *verb transitive and intransitive.*

nook (nŏŏk), *v. t. & i.* To hide or put in a nook, or corner.

23. If the same verb has a definition in the transitive, and a definition in the intransitive, the label *v. t.* (or *v. i.*) is given after the entry; the second definition follows the first, but a heavy dash and the label *v. i.* (or *v. t.*) intervene.

link (lĭngk), *v. t.* To connect or unite with or as with a link; to join; attach; couple. — *v. i.* To be connected, coupled, or joined.

IV. The Inflectional Forms

24. In case the *Inflectional Forms* (as the plural of a noun; the past tense, etc., of a verb; and the comparative and superlative forms of an adjective) are irregular or have an irregular spelling, the inflectional form is given in SMALL CAPITALS.

mouse (mous), *n.*; *pl.* MICE (mīs).

25. The plural of nouns is indicated by the prefixed italic abbreviation *pl.* If no plural is given, it is formed regularly, by the addition of *s*.

26. If a noun has the same form in both singular and plural, the label is *n. sing. & pl.* (*noun singular and plural*).

deer (dēr), *n. sing. & pl.*

27. When two (or more) plurals are given, the first is the preferred form. But, in some instances, nouns with several meanings use one plural form in some, and the other form in the others; any difference in usage is indicated.

gen′ius, *n.*; *pl.* GENIUSES, GENII (see note, below).
. . . .
☞ In the senses of defs. 1 and 2 the Latin plural, *genii*, is now the only correct plural form. For the other senses *geniuses* is the correct plural.
an·ten′na (ăn·tĕn′ȧ), *n.*; *pl.* -NAE (-ē), (in *Radio* sense) -NAS.

28. The inflected forms of personal pronouns (*I*, *thou*, *he*, etc.) are given.

29. The principal parts of verbs are given whenever irregular formations require. Usually, only two forms are given, that for past tense and past participle, and that for present participle and verbal noun.

al·lude′; AL·LUD′ED; AL·LUD′ING.
ab·hor′; AB·HORRED′; AB·HOR′RING.
ac·cou′ter, ac·cou′tre; -TERED, -TRED; -TER·ING, -TRING.
ac·com′pa·ny; AC·COM′PA·NIED; AC·COM′PA·NY·ING.
a·bide′; *past & past part.* A·BODE′, A·BID′ED; *past part.* rarely A·BIN′DEN; *pres. part. & verbal n.* A·BID′ING.

30. The principal parts are sometimes omitted when they are formed regularly by adding *-ed* in the past tense and past participle, and they are not given for some compounds when the root word is entered with its principal parts (**overdevelop, colddraw**). Principal parts are not given for some obsolete or rare verbs ending in silent *-e*, and for some verbs ending in *-ize*.

31. The comparative and superlative forms of adjectives are given if irregular, if there is doubt about spelling, and often if they are formed by adding *-er* and *-est*. They are not given when formed by prefixing *more* and *most*. See COMPARE, *v. t.*, 3, in the *Vocabulary*.

bad; WORSE; WORST.
hap′py; HAP′PI·ER; HAP′PI·EST.
dry; DRI′ER; DRI′EST.
a′ble; A′BLER; A′BLEST.
nar′row; NAR′ROW·ER; NAR′ROW·EST.

32. The comparative and superlative forms of adverbs are given if they end in *-er*, *-est*.

of′ten; OF′TEN·ER; OF′TEN·EST.

V. The Etymology

33. The *Etymology*, in square brackets, precedes the definition.

NOTE: — For the meanings of abbreviations in the Etymology, see the table of *Abbreviations Used in This Dictionary*, p. xci.

34. It is the purpose of the Etymology to trace the word as far back as possible in English as, for example, to Anglo-Saxon; to tell from what source it came into English; and to trace the pre-English source as far back as possible.

Meanings given within the brackets are the "ancestors," as it were, of the modern meaning or meanings, though the etymological meaning may be, and often is, the same as the earliest modern meaning. See *Introduction*, pp. xiii–xiv; *History of the English Language*, pp. lxxxii–xc.

35. *Native English Words.* The Etymology gives the Middle English and Anglo-Saxon forms, or the Anglo-Saxon form alone, of native words, usually in the formula:

a′corn, *n.* [ME. *akern*, fr. AS. *æcern*. . . .]
back, *n.* [AS. *bæc*. . . .]

NOTE: — When only the Anglo-Saxon form is given, the Middle English form was the same as in Modern English.

36. Related words in other Germanic or Indo-European languages are given if the English word has such cognates.

boat, *n.* [ME. *boot*, *bat*, fr. AS. *bāt*; akin to ON. *beit*; orig. a hollowed tree trunk; akin to L. *findere*, to cleave. ON. *bātr*, D. & G. *boot*, F. *bateau*, are all ult. fr. E. . . .]

37. *Borrowed Words.* The Etymology gives the language from which a word is borrowed and the form of the word in that language if the form differs from that in English.

at·tend′, *v.* [ME. *atenden*, fr. OF. *atendre* (F. *attendre*), fr. L. *attendere* to stretch (sc. *animum*) to apply the mind to, fr. *ad* to + *tendere* to stretch. See TEND.]
blas′phe·my, *n.* [ME. *blasphemie*, *blasfemie*, fr. OF. *blasfemie*, fr. L. *blasphemia*, fr. Gr. *blasphēmia*.]

38. In the case of many words descended originally from Latin or Greek, the Etymology gives also the primary Latin or Greek constituents of the word.

ag′gre·gate, *v.* [L. *aggregatus*, past part. of *aggregare*, fr. *ad* to + *gregare* to collect. . . .]
bi·og′ra·phy, *n.* [Gr. *biographia*, fr. *bios* life + *graphein* to write. . . .]

39. An etymology beginning with the name of a language, and not giving the foreign form, or the foreign meaning, indicates that the foreign form, or meaning, or both, were the same as the form or meaning in English.

de·trac′tion, *n.* [OF., fr. L. *detractio*.]
Boer, *n.* [D., a farmer. . . .]

40. In words of Chinese origin, the small superior figures refer to the tones. See *Introduction*, p. xiv.

Kuo′min·tang, *n.* [Chin. (Pek.) *kuo*^{2} nationalist + *min*^{2} people's + *tang*^{3} party.]

41. *Coined Words.* The Etymology gives the constituent parts of words that have been used in creating a Modern English coined word.

ap′pen·dec′to·my, *n.* [*appendix* + *-ectomy*.]
bi·ol′o·gy, *n.* [*bio-* + *-logy*.]
bob′tail′, *n.* [*bob* + *tail*.]

42. In etymology two forms of cross reference are used. "See" refers the reader to another etymology in which is contained additional valuable or necessary material; "Cf." calls the attention of the reader to the fact of relationship between the two words.

VI. The Definition

43. The *Definition* follows the Etymology.

44. Heavy-faced Arabic numerals (**1.**, **2.**, **3.**, etc.) are used to number definitions when the meanings are numerous or are quite divergent from one another.

45. Heavy-faced letters (**a**, **b**, **c**) are used to mark definitions when the meanings are very few, or when meanings may be easily and clearly grouped. Several special senses (as in *Botany*) may be separately lettered and placed under one number.

46. In general, the technical and scientific senses are arranged, in the alphabetical order of their labels, at the end of words of many meanings (*Anat.*, *Bot.*, *Chem.*, *Elec.*, *Geol.*, *Mineral.*, *Zool.*, etc.).

47. Arrangement of definitions in the historical order of development should not be taken to imply that each sense has developed from the immediately preceding sense. Sometimes sense 1 gives rise to sense 2, sense 2 to sense 3, and sense 3 is the source of sense 4. Sometimes, however, each of several senses derived in independent lines from sense 1 has served as the source of a number of other meanings. See, for example, 1st BAR, *n.*, in the *Vocabulary*. Whenever possible, the major outlines of sense development in such words are indicated by prefixing headings, with roman numerals, to the separate lines. See, for example, 1st BAND, *n.*; COVER, *v.*, in the *Vocabulary*.

48. *Proper Names* and *Proper Adjectives* either are entered with a capital letter, or are treated otherwise to show the capitalization. See *Note* 49.

De'li·a, *n.* *Gr. & Rom. Myth.* Artemis.
De'li·an, *adj.* Of or pertaining to the island of Delos.

49. Nouns which are proper nouns in one or more senses, but common nouns in other senses, have the facts shown by bracketed notes; thus, *Acacia* is a proper noun (the name of a botanical genus) in sense 1 **a**. But it is a common noun in all other senses, as shown by the note [*not cap.*] prefixed to senses 1 **b**, 2, 3, and 4. *Atlas* is a proper noun in senses 1 and 9; it is a common noun in senses 2–8. On the contrary, *cosmos*, entered without a capital, is a common noun in senses 1 and 2, but it is a proper noun in sense 3 **a**, marked [*cap.*].

A·ca'cia (ȧ·kā'shȧ), *n.* **1.** *Bot.* **a** A genus of 450 species of woody plants of warm regions. . . . **b** [*not cap.*] A plant of this genus.
2. [*not cap.*] The common locust tree (*Robinia pseudoacacia*). *U.S.*
3. [*not cap.*] Gum arabic.
4. [*not cap.*] A color, yellow in hue, of medium saturation and high brilliance. Cf. COLOR.

50. *Prefixes* (pre-), *Suffixes* (-ation), and *Combining Forms* (paleo-, -plasty) are entered and defined, although they are not words.

51. *Abbreviations* (A.D., mo) are entered and defined in the *Appendix*, p. 2989. Abbreviations are not words.

52. *Foreign Words* are indicated by prefixed parallel bars:

‖**Ab'tei'lung**, ‖**ac'tus**, ‖**a·dios'**, ‖**es'prit'**

These are terms that occur frequently enough in speech and print to require definition in a Dictionary of English, but the retention of a purely foreign pronunciation, and the fact that they are generally printed in italic type, fix their status as foreign.

53. Words of similar origin that are pronounced as English and are printed in roman type, are sufficiently Anglicized to be entered without bars.

e·lite', *n.*
dé·col'le·té, *adj.*

54. An *Obsolete Word* is one that has entirely disappeared from current usage. In general, this Dictionary regards as obsolete all literary or colloquial words, and all meanings, that have not appeared in print since 1660. But many scientific and technical words (and meanings) are obsolete even though they may have appeared in print since that date.

em·boss', *n.* A knob; a boss. *Obs.*
first'er, *adj.* Former; earlier. *Obs.*

VII. Labels

55. *Labels* are italic epithets; they are prefixed or added to many definitions for the following purposes:

56. *Subject Labels* are prefixed to show the department of knowledge in which the word or the meaning occurs (*Anat.*, *Law*, *Mach.*, *Meteorol.*, *Petrog.*, etc.).

57. *Usage Labels* are added at the end of unnumbered or numbered definitions (*Obs.*, *Slang*, *Colloq.*). In lettered senses, the labels are, for the sake of clearness, placed between the letter (**a**, **b**) and the definition. If all the senses, or all the lettered senses under one number, of a word are *Obsolete*, *Slang*, etc., the label is placed at the head of the treatment (*Obs.* **1.** . . . **2.** . . . **3.** . . ., or **1.** *Obs.* **a** . . . **b** . . .).

58. *Geographical Labels* are placed at the end of unnumbered or numbered definitions (*Brit.*, *Southwestern U.S.*, *Australia*). In lettered senses, such labels are, like the *Usage Labels*, placed between the letter and the definition. A Geographical Label means that the labeled word or meaning is used only or chiefly in the area indicated by the label.

VIII. Cross References

59. *Cross References* are made in order to guide the reader to further information. "Cf." means "compare," and leads to useful, interesting, or related material that is not, however, essential to an understanding of the meaning. "See" leads to information that is either highly important or essential to an understanding of the meaning. See *Note* 42, above, for *Cross References* in *Etymology*.

em·bar'go, *n.* **1.** . . . Cf. BLOCKADE.
el'e·phant, *n.* **1.** . . . See MAMMOTH, MASTODON.
em'bry·o, *n.* **3.** *Bot.* . . . See SEED, EMBRYOGENY, GERMINATION.
black mustard. See MUSTARD.

60. A *Cross Reference* to one of several entries that are spelled alike, especially when there is more than one entry belonging to the same part of speech, is sometimes by number.

chucking lathe. See 2d LATHE.

61. In reckoning an entry as 1st, 2d, 3d, etc., capitalized entries are counted. But prefixes, suffixes, and combining forms are not counted.

James Blunt, Sir. See 4th BLUNT **b**.
traps, *n. pl.* . . . See 3d TRAP, 2.
spring'trap, *n.* See -TRAP.

If there are two or more prefixes or suffixes spelled alike, the cross reference is sometimes made by a number referring only to the prefixes or suffixes, as in the case of 1st or 2d -AD.

62. When there are several entries spelled alike, but belonging to different parts of speech, a cross reference to one of these is usually made by "part of speech" rather than by counting.

walnut tree. = WALNUT, *n.*, 1 **b**.
cir'cum·flex, *n.*, 1. . . . See ACCENT, *n.*, 2.

IX. The Synonymy

63. The *Synonymy* is placed next below the definitions. It sometimes consists of two lists, one in small (lower-case) type, the other in small capitals. The lower-case list simply enumerates words of similar meaning. The words in such a list are separated with commas or semicolons; a semicolon means that preceding words are synonyms in one sense, and following words are synonyms in another sense. The small-capital list is followed by a full treatment of the shades of difference in meaning between the synonymous words, together with illustrative quotations exhibiting the differences.

dex'ter·ous, dex'trous, *adj.*
Syn. — Adept, apt, quick. — DEXTEROUS, ADROIT, DEFT, CLEVER agree in the idea of . . . etc.
des'per·ate, *adj.*
Syn. — Despairing, desponding; [these refer to sense 1]: — rash, headlong, precipitate; [these refer to sense 3 **a**]: — mad, frantic; [these refer to sense 3 **b**].

64. Sometimes the Synonymy distinguishes between words that are improperly confused.

Syn. — PERSPICUOUS, PERSPICACIOUS are sometimes confused. That is PERSPICUOUS which is clear or lucid (see CLEAR); one is PERSPICACIOUS who is characterized by clear or acute discernment (cf. SHREWD).

65. *Antonyms*, when given, are in lowercase type, following the Synonyms. The differences in meaning among Antonyms are often discussed under a Synonymy to which a cross reference is given.

blend, *v.* . . .
Ant. — Separate. See DIVIDE.

X. Run-on Entries

66. *Run-on Entries* are placed at the end of the paragraphed entries, with an intervening light dash. Such entries are usually derivative adjectives, adverbs, and nouns, and are of such a character that their meaning is easily inferred from the definition of the word to which they are attached.

gas'light' (găs'līt'), *n.* . . .
— **gas'light'**, *adj.* — **gas'light'ed**, *adj.* — **gas'light'ing**, *n.*

67. Often, when a *Run-on Entry* is a different part of speech from the main entry, but requires a definition, the run-on entry consists only of a short heavy dash and the part of speech.

re·sist'ant, *adj.* Making resistance; resisting; as, a constitution *resistant* to disease. — *n.* One who or that which resists.

XI. Self-explanatory Combinations

68. Lists of *Self-explanatory Combinations* and *Phrases* are inserted frequently after prefixes, suffixes, combining forms, and sometimes after nouns and adjectives. These lists record the existence of thousands of idiomatically formed expressions, and answer the question whether the terms included (and similar terms) are to be written or printed as hyphened compounds, as solid compounds, or as two words.

For the principles governing the formation of such terms, see 4th COMPOUND, 3 **b**, and HYPHEN, *n.*, 1 **b**, in the *Vocabulary*.

an'te- (ăn'tē-). A prefix. . . .

anteact	**ante-Hieronymian**	**anteoccupation**
anteambulate	**antehistoric**	**anteocular**
anteambulation	**antehuman**	**anteorbital**
ante-Babylonish	**anteinitial**	**antepatriarchal**
antebaptismal	**antejentacular**	**anteporch**
etc.	**etc.**	**etc.**

An'glo- (ăng'glô-). A combining form. . . .

Anglo-Abyssinian	**Anglo-Dutchman**	**Anglo-Norwegian**
Anglo-Afghan	**Anglo-Ecuadorian**	**Anglo-Nubian**
Anglo-African	**Anglo-Egyptian**	**Anglo-Persian**
etc.	**etc.**	**etc.**

fork, *n.* . . .
☞ COMBINATIONS and PHRASES (in various senses) are:

fork-carving, *adj.*	**fork hafter**	**fork-shaped**
fork cutler	**fork maker**	**forksmith**
fork-filled	**fork molder**	**fork splitter**
fork forger	**fork-pronged**	**fork-tined**
fork grinder	**fork-ribbed**	**fork-tongued**

needle, *n.* . . .
☞ COMBINATIONS and PHRASES are:

needle-form, *adj.*	**needlemaker**	**needle-shaped**
needle grinder	**needlemaking**	**needle-sharp**
needle grinding	**needlemonger**	**needleworked**
needle-leaved	**needle-nosed**	**needleworker**
needle-made	**needle-scarred**	

celled (sĕld), *adj.* . . . Combinations, denoting *having* (so many or such) *cells*, are:

few-celled	**muscle-celled**	**short-celled**
full-celled	**narrow-celled**	**single-celled**
etc.	**etc.**	**etc.**

The lists above under *fork* and *needle* may require special consideration. **Fork-carving**, when used attributively as an adjective, is hyphened (see HYPHEN, 1 **b**, in the *Vocabulary*). In a noun sense the phrase would be **fork carving**. Similarly, **needle grinder** and **needle grinding** are printed as two words when used as nouns; **needle-grinding**, *adj.*, takes the hyphen. In lists throughout the *Dictionary*, whenever attributive adjectives consisting of a noun and a present participle in *-ing* (a *needle-grinding* machine) are entered in hyphened form, the corresponding noun is two separate words, unless the noun is entered in the solid or hyphened form (**wool-growing**, *adj.*, **woolgrowing**, *n.*). In **needlemaker** and **needlemaking**

(also in many common words ending in *-maker*, *-making*) the solid form is used, whether the latter is a noun or an adjective (see MAKER, MAKING, *n.*, MAKING, *adj.*, in the *Vocabulary*). In **needle-leaved, needle-nosed**, etc., the noun is prefixed to a noun plus the suffix *-ed* to form an adjective. The words (all adjectives) ending in *-celled* are formed similarly, the first element being either an adjective or a noun, the second originally a noun plus the suffix *-ed*.

XII. Run-in Entries

69. *Run-in Entries* are those which are incorporated, with definitions, into another, usually a more general, definition. Thus, under BOND, *n.*, 17, are run in and defined various kinds of bonds used in building: ***English bond, blind bond, Flemish bond,*** etc. Under INSURANCE, *n.*, 1, are defined ***life insurance, fire insurance, marine insurance, accident insurance, health insurance,*** etc. These *Run-in Entries* are usually printed in italic bold-faced type. When convenience is so gained, they are also entered in the *Vocabulary*, in their alphabetical position, with a cross reference to the entry where they are defined.

fork, *n.* **2.** A small instrument of this description, for use at the table in manipulating food. Standard types of table forks are the ordinary four-tined ***dinner fork*** and slightly smaller ***dessert fork***, the flat, short, three-tined (also four-tined) ***salad fork***, the small three-tined ***oyster fork***, and the bifurcated spoonlike ***ice-cream fork***.

XIII. Prepositional Phrases

70. Only those *Prepositional Phrases* are entered that exhibit an idiomatic, specific, or otherwise peculiar meaning (***at hand, by hand, in hand***). They are entered in italic bold-faced type under the noun forming part of the phrase. If there are more than one, they are alphabetized among themselves, and are separated by dashes.

gear, *n.* . . .
— ***in full gear.*** *Mach.* In gear so that the link motion operates the valve to the fullest extent; — said of steam engines with valves worked by a link motion. — ***in, or out of, gear.*** Connected or disconnected with the motor; in, or out of, working relation; hence, in, or out of, order.

71. *Prepositional Phrases* in which the peculiarity of meaning is centered in the preposition are entered in italic bold-faced type and are arranged in alphabetical order immediately after the preposition (***above himself, oneself, themselves,*** etc. . . . ***above the line,*** under ABOVE, *prep.*).

for, *prep.* . . .
for as much as, *or* ***forasmuch as.*** In consideration that; seeing that; since; also, formerly, so far as. — ***for a' that.*** *Scot.* In spite of all that; — from a poem by Robert Burns containing the line, "A man 's a man *for a' that*." — ***for ever.*** Eternally. See FOREVER. — ***for ever and a day.*** Emphatically forever. *Shak.* — ***for that, for the reason that.*** Because; since. "*For that* I love your daughter." *Shak.*

72. *Phrases* consisting of a *noun* and a *prepositional phrase* (**hand in hand**) are entered in their alphabetical place in the main vocabulary.

burst, *or* **bursting, of the monsoon.** The sudden change from fine weather to heavy rains at the beginning of a monsoon on Asiatic coasts.

XIV. Verb Phrases

73. *Verb Phrases* (***break away, break camp, break down,*** etc.) are entered in italic bold-faced type, immediately following the simple verb. If there are more than one, they are alphabetized among themselves.

make, *v.* . . .
make a book. To record bets in a book; to make a business of accepting bets, as on horse races. See BOOK, *n.*, 7.
make account. To have an opinion or expectation. *Obs.*

XV. Adjective-and-Noun Phrases

74. *Phrases* consisting of an *adjective* and a *noun* are entered in their alphabetical place in the main vocabulary.

absolute pitch, absolute zero, blind alley, electrical engineer, electric heating

XVI. Noun-and-Noun Phrases

75. *Phrases* consisting of an *attributive noun* and another *noun* are entered in their alphabetical place in the main vocabulary.

anchor light, band wagon, cave bear

XVII. The Lower Section of the Page

76. In the *Lower Section* of each page, in smaller type and narrow columns, are entries of several kinds. These entries have exactly the same status as words in the upper section: they are standard English words except as indicated by usage labels (*Obs.*, *Slang*, *Ref. Sp.*, etc.), bars (to show foreign-language status), etc.

(a) Cross references of several kinds:

(1) The definition consists only of the word "See" and the entry to be consulted:

cen·trip'e·tal·ism, *n.* See -ISM.
Ac'ti·um (ăk'shĭ·ŭm), *n.* See BATTLE, *Table.*
accident insurance. See INSURANCE.

(2) The "equal" sign (=) and the entry to be consulted.

blood'stroke', *n.* = APOPLEXY.
badger dog. = DACHSHUND.

(3) "Var. of" and the entry to be referred to.

blame'a·ble. Var. of BLAMABLE.
bag'ga·net. Dial. var. of BAYONET.

NOTE:—*Dial. var. of* (= *dialectal variant of*) is used to indicate a spelling representing the, or a, dialectal pronunciation of a word.

(4) Obsolete variant of..., as indicated by the dagger (†).

bis'ket. † BISCUIT.

(5) Plurals, past tenses, past participles, adverbs, comparatives, superlatives, etc.

ad·den'da, *n., pl.* of ADDENDUM; — also used rarely as *sing.*
bade (băd), *past* of BID.
bla'tant·ly, *adv.* of BLATANT.
chan'dler·ess, *n., fem.* of CHANDLER.
bad. Obs. past of BIDE.

(6) Diminutives, euphemisms, corruptions, and shortened forms.

Ab'bie (ăb'ĭ), *n.* Dim. of ABIGAIL.
blug'gy (blŭg'ĭ), *adj.* Euphemism for BLOODY.
ba'ga. Short for RUTABAGA.
bird'bolt' (bûrd'bōlt'), *n.* Corrupt. of BURBOT.

(7) Synonyms of botanical and zoological names of genera, families, etc.

As'per·i·fo'li·ae (ăs'pĕr·ĭ·fō'lĭ·ē), *n. pl.* [NL. See ASPERIFOLIATE.] Syn. of BORAGINACEAE.
Bi·o'ta, *n.* [NL.] Syn. of THUJA.

(b) Reformed spellings.

ac·ces'si·bl. Accessible. *Ref. Sp.*

(c) Proper names from the *Bible* or from the *Douay Bible*, entered only to show the pronunciation.

A·da'li·a (ȧ·dā'lĭ·ȧ; ăd'ȧ·lī'ȧ). *Bib.*
Ad'a·ma (ăd'ȧ·mȧ). *D. Bib.*

(d) A few rare obsolete words.

ac'com·mode', *v. t.* & *i.* To accommodate. *Obs.* — **ac'com·mode'ment,** *n.* *Obs.*
ar·rep'tion, *n.* Act of taking away. *Obs.*

(e) A very few extremely rare words.

blan·dil'o·quous, blan'di·lo'qui·ous, *adj.* Fair-spoken; flattering. *R.*

(f) Foreign language quotations, proverbs, and longer phrases.

‖**à corps' per'du'** (à kôr' pĕr'dü'). [F.] Literally, with lost body; impetuously; desperately.
‖**mors om'ni·bus com·mu'nis.** [L.] Death (is) common to all.
‖**non quo, sed quo'modo.** [L.] Not by whom, but how.

A
DICTIONARY
OF
THE ENGLISH LANGUAGE

A, a (ā), *n.*; *pl.* A's, a's, As, as, aes (āz). **1.** The first letter of the English and most cognate alphabets. A in its various forms (capital, small, italic, black-letter, script, etc.) comes from Latin A, which was from Greek A (*alpha*), which in turn was derived from the first letter of the Phoenician alphabet. The Phoenician letter — as the corresponding Hebrew letter, called *'aleph* ("ox") — designated the glottal catch, a consonantal sound (indicated by the apostrophe) after which any vowel might be spoken; the Greeks, not using the glottal catch, employed the letter to designate the pure vowel sound (ä) which begins the name *alpha*. In Modern English the letter represents various sounds. See *Pron.*, § 76. Originally in English, as in most other languages of Europe, it indicated "Italian a" (ä). Modern "long a," as in *fate*, is a comparatively recent development. In cognate words English *a* (acre, father) regularly corresponds to German *a* (acker, vater), Latin *a* (ager, pater), Greek *a* (agros, patēr), and Sanskrit *a* (ajra) or *i* (pitar-) (see SCHWA). See ALPHABET.

2. a An instance of the letter A, a, printed, written, painted, etc. **b** A printer's type, a stamp, etc., for the letter A, a. **c** The sound, or any sound, of the letter A.

Mouthing out his hollow oes and *aes*. *Tennyson.*

d The front of the leaf (in a book in which the leaves, instead of the pages, are numbered). **e** [*cap.*] In medieval Roman numerals, 50 or 500, or, in the form Ā, 5,000. **f** [*not cap.*] *Alg., etc.* A known quantity (which see). **g** [*cap.*] *Logic.* The universal affirmative proposition.

3. Anything having the shape of the letter A.

4. *Music.* **a** The sixth tone in the model major scale (that of C), or the first of its relative minor scale. See KEY, *Illust.* **b** In notation, any symbol representing this tone, as a note on a certain line or space of a staff, or the line or space itself. See PITCH, *Illust.* **c** On an instrument, this tone as produced by a certain key or string; also, the key or string. See KEYBOARD, *Illust.*

5. As a *symbol*, used to denote or indicate anyone or anything arbitrarily or conveniently so designated, esp. as the first in order or class; as, *A* deeded blackacre to B.

6. As an *abbreviation*: see *Abbreviations*, in Appendix.

— from A to Z. From beginning to end; thoroughly.

A, a, *adj.* **1.** First in order or class; as, Company *A*; quire *a*; belonging to a group, class, category, etc., called A; as, an *A* proposition; an *A* string.
2. [*cap.*] Having the form of capital A; as, an A tent.

A, *interj.* **1.** An obs. or dial. equiv. of O, AH.
2. [*not cap.*] (*pron.* ȧ) In poetry, an appended expletive, void of sense, to fill out the meter.

A merry heart goes all the day, Your sad tires in a mile-*a*. *Shak.*

a (ȧ; *emphatic* ā), *adj.*, or (as usually called) the *indefinite article.* [Shortened fr. AN, *adj.*] **1.** One; some particular; specif.: **a** One particular (of a class understood, or specified in the context); as, be is *a* man; John is *a* man. **b** Some undetermined or unspecified particular; as, I saw *a* man walk by. **c** Some certain one; as, *a* man whose name I cannot divulge gave this information. **d** Some one or another; as, *a* man is needed in the shipping room.
2. One kind of; some kind of; as, copper is *a* metal.
3. Any; each; every; as, *a* man who will do that ought to be arrested.
4. The same; as, birds of *a* feather.
5. In such expressions as twice *a* week, a dollar *a* dozen, *a* has a distributive force and is equivalent to *in, to,* or *for each, for every*; — derived from AS. *an*, on (= ON, *prep.*).
☞ *A* is used before words beginning with a consonant sound (see AN, *adj.*). With a plural noun, *a* is used only if *few, very few, good many,* or *great many* is interposed; as, *a* few persons. In this construction *few* and *many* were originally singular nouns followed by the partitive genitive. *A* precedes nouns and adjectives with which it is used, except that it follows *many, such, what,* and any adjective or adjectives preceded by *as* or *how*, and usually follows any adjective or adjectives preceded by *so* or *too*; as, many *a* man; how good and brave *a* deed; too severe *a* punishment.

‖**à** (ȧ), *prep.* [F., fr. L. *ad.* See AT.] To; at; in; into; after the manner of; according to; so far as; until. See À LA.

a (ȧ), *prep.* [ME. & AS. *of.* See OF; cf. o', *prep.*] Of. "What time *a* day is it?" "John *a* Gaunt." *Shak.*

a (ȧ), *prep.*, **a-, a—** (ȧ-), *prefix.* [AS. *an, on.* See ON; cf. o', *prep.*] On; in; at; — with various implications: **a** Position or motion, as in *a*hed, *a*shore, *a*round, *a*sunder, and (*Obs.*) *a* two. **b** State or condition, orig. with nouns, but now often with verbs, as in *a*fire, *a*jar, *a*live, *a*sleep. **c** Time, as in nowadays, and (*Obs.*) *a* Monday, *a* nights. **d** Manner, as in *a*loud, *a*main, (*Dial.*) *a* purpose, and (*Obs.*) *a* this wise. **e** Process or action; — used with verbal nouns in *-ing*, as in *a* building, *a* hunting. "Jacob, when he was *a* dying." *Heb.* xi. 21. "He burst out *a* laughing." *Macaulay.* This use is common in poetic, colloquial, and dialectal speech, and the forms are often written as hyphened or solid words, as in *a*-begging, *a*walking. In standard literary speech the *a* does not occur, as in "He has gone bunting."

a- (ȧ-). A common prefix, from various sources, and having various meanings. Specif.: **1.** See 7th A, on.
2. A prefix from Anglo-Saxon *ā-* (akin to Goth. *us-, ur-*, Ger. *er-*, orig. meaning *out*), now of vague or usually intensive significance, as in *a*rise, *a*bide, *a*go.
3. A prefix, equiv. to A, *prep.* (= Anglo-Saxon *of* off, from; see OF), orig. meaning *off*, as in *a*down, *a*thirst, *a*new.
4. A form of the prefix *y-*, as in *a*ware. See Y-.
5. A reduced form of Latin *ad* to, as in *a*scend, *a*scribe; often through French *a-*, prefix (see À), as in *a*venue, or through French *a*, prep. (now *à*), as in *a*chieve, *a*gree.
6. = 1st AB-.
7. (*pron.* ȧ, ă) [Gr. *an-* not, of which *a-* is the form used before consonants. See 2d UN-.] A prefix, appearing as *an-* before vowels or the letter *h*, denoting *-less, not, without, un-*, as in *a*byss, literally, the bottomless; *a*gnostic, not knowing; *an*archy, lawlessness; *a*chromatic, colorless; *an*hydrous, not hydrous. Commonly called *alpha privative.*
☞ Generally pronounced ȧ, or ă, as in *abyss* (ȧ·bĭs'), *achromatic* (ăk'rō·măt'ĭk), but in many scientific words ā, as in *asexual* (ā·sĕk'shōō·ăl), or ā, as in *abiological* (ā'bī·ō·lŏj'ĭ·kăl), *ablastemic* (ā'blăs·tĕm'ĭk).
8. A prefix of vague meaning, sometimes not distinguishable from *a-* in sense 5 (above), appearing variously as *a-, ad-, as-,* etc., as in *a*mate, *a*ddoom; — used chiefly in poetry. Cf. A, *interj.*, 2.
☞ Less important sources of the prefix are indicated in the etymologies of ADO, ALAS, 1st ALONG, AMEND, AVAST, etc.

a, a' (ä; ô), *adj.* All. *Scot., N. of Eng., & Ir.*

-a (-ȧ). A suffix from various sources: **a** An ending of nouns in the first declension in: (1) Greek or Latin, as in formul*a*. (2) Romance languages, as in stanz*a*. **b** An ending of: (1) Personal names, as in Ann*a*. (2) Geographical names, as in Americ*a*. **c** An ending of plural nouns of Greek or Latin origin, as in phenomen*a*, gonidi*a*.

A 1. See A ONE.

a'a' (ä'ä'), *n.* [Hawaiian.] *Petrog.* Rough, scoriaceous lava; — contrasted with *pahoehoe.* *Hawaii.*

A acid (ā). *Chem.* A white crystalline acid, $C_{10}H_9NO_4S$, sometimes used as a dye intermediate. It is 6-amino-1-naphthol-5-sulphonic acid.

a'a·li'i (ä'ä·lē'ē), *n.* A small tree (*Dodonaea viscosa*) prized for its hard dark wood. *Hawaii.*

aam (ôm; äm), *n.* [D., fr. L. *ama, hama*, a water bucket, fr. Gr. *amē.*] An old Dutch and German measure of liquids, usually between 36 and 42 United States gallons.

A·a'ni (ä·än'ē), *n.* [Egypt. *āāni, āānā, āān*, oldest form *ānr* ape, baboon.] *Egypt. Relig.* The cynocephalus, or dog-headed ape, sacred to the god Thoth.

‖**aar** (är), *n.* [D., vein.] An underground stream. *S. Afr.*

aard'vark' (ärd'värk'), *n.* [S. Afr. D., lit., earth pig. See EARTH; FARROW.] Either of two African mammals of the genus *Orycteropus.* They attain a length of five feet, including the tail. They burrow in the ground, feeding entirely on ants, which they catch with the long, slimy tongue. They constitute the order Tubulidentata.

Aardvark (*Orycteropus capensis*). (1/30)

aard'wolf' (ärd'wŏŏlf'), *n.* [D., earth wolf.] A hyenalike quadruped (*Proteles cristata*), of South and East Africa, having a striped coat, five-toed forefeet, and a distinct mane. It feeds chiefly on carrion and insects, esp. termites. It constitutes a family, Protelidae, or is included in the hyena family.

Aardwolf (*Proteles cristata*). (1/20)

Aar'on (âr'ŭn), *n.* [LL., fr. Gr. *Aarōn*, fr. Heb. *Aharōn.*] **1.** Masculine proper name. Ar. *Hārūn*, or *Hāroun* (hä·rōōn').
2. The first Jewish high priest; figuratively, an ecclesiastical leader.
3. In Shakespeare's *Titus Andronicus*, a villainous Moor, beloved by Tamora.

Aar'on, *n.* [Gr. *aron.* See ARUM.] The cuckoopint. *Eng.*

Aa·ron'ic (â·rŏn'ĭk), *adj.* **1.** Pertaining to Aaron the Levite, the first high priest of the Jews; hence, Levitical.
2. Of or pertaining to the lesser order of priesthood in the Mormon Church, comprising the grades of deacon, teacher, and priest. Cf. MELCHIZEDEK, *adj.*

Aa·ron'i·cal (â·rŏn'ĭ·kăl), *adj.* **a** Aaronic. **b** Of or pertaining to a high priest; having the pomp, dignity, accouterments, etc., of a high priest.

Aar'on·ite (âr'ŭn·īt), *n.* A descendant of Aaron, the Jewish high priest. — **Aar'on·it'ic** (-ĭt'ĭk), *adj.*

Aar'on's-beard' (âr'ŭnz·bẽrd'), *n.* Any of several plants having some resemblance to a beard, as: the great St.-John's-wort and the related Jerusalem star, from their numerous stamens; the strawberry geranium and the Kenilworth ivy, from their threadlike runners; and *Opuntia leucotricha*, from the white hairs on its joints.

Aaron's rod. **1.** The rod used by Aaron, which miraculously blossomed and bore almonds. *Num.* xvii. 8.
2. *Arch.* A straight molding of rounded section from which a design of scrollwork or leafage emerges.

Aar'on's-rod' (-rŏd'), *n.* Any of several plants with a tall flowering stem, as the great mullein.

A·a'ru (ä·är'ōō), *n.* [Egypt. *āaru* reeds.] *Egypt. Relig.* The abode of the blessed dead; — usually in the phrase ***fields of Aaru.***

‖**aas'vo'gel** (äs'fō'gĕl), *n.* [D.] A vulture. *S. Afr.*

Ab (ăb; äb), *n.* *Egypt. Relig.* The heart, supposed at death to proceed to the future world.

ab- (ăb-; ȧb-). [L.; akin to E. *of, off.* See OF.] A prefix in words borrowed from Latin, as *ab*duct; borrowed from French, as *ab*use; or formed in English, as *ab*sonant. It signifies *from, away, separation,* or *departure.*
☞ Latin *ab-* appears in English also as *a-, abs-*; in words from French as *av-* (with aphaeresis, *v-*), and, by false etymology, *adv-*. See etymologies of AVERT, ABSTAIN, 3d AVAUNT, VANGUARD, ADVANCE.

ab- (ăb-), **abs-** (ăbz-). [Short for *absolute.*] *Physics.* A prefix used to denote a C.G.S. electromagnetic unit, as in the following table. ***Abstat-*** is sometimes used similarly for a C.G.S. electrostatic unit. Cf. STAT-.

Unit	Nature	Equivalent
abampere	current	10 amperes
abcoulomb	quantity	10 coulombs
abfarad	capacity	10^9 farads
abhenry	inductance	10^{-9} henrys
abmho	conductance	10^9 mhos
abohm	resistance	10^{-9} ohms
abvolt	potential	10^{-8} volts

ab'a (ăb'ȧ), *n.* [After A. T. d'*Abbadie*, inventor.] A form of altazimuth.

a'ba (ä'bȧ), *n.* [Ar. *'abā'.*] **1.** A coarse fabric, generally striped, woven from the hair of camels, goats, etc., in Arabia, Syria, etc.
2. A loose sleeveless outer garment worn by Arabs.

A·bab'deh (ȧ·băb'dĕ), *n. pl.* [Ar. *'Abābidah.*] A tribe of Hamitic nomads of Upper Egypt.

A'ba·bu'a (ä'bä·bōō'ä), *n. pl.* A Negro people of the Uele basin, Belgian Congo.

a'ba·cá' (ä'bä·kä'), *n.* [Tag.] **a** The Manila hemp; also, the plant yielding the fiber. **b** = LINAGA.

a'ba·cay' (ä'bä·kī'), *n.* [Native name.] The calangay. *P. I.*

a·bac'i·nate (ȧ·băs'ĭ·nāt), *v. t.* [ML. *abacinatus*, past part. of *abacinare*, fr. *ab* off + *bacinus* a basin.] To blind by means of a red-hot metal plate held before the eyes. *Rare.* — **a·bac'i·na'tion** (ȧ·băs'ĭ·nā'shŭn), *n.*

ab'a·cis'cus (ăb'ȧ·sĭs'kŭs), *n.* [L., fr. Gr. *abakiskos.*] An abaculus.

ab'a·cist (ăb'ȧ·sĭst), *n.* [LL. *abacista*, fr. L. *abacus.*] An arithmetician who uses an abacus; a calculator.

a·back' (ȧ·băk'), *adv.* [ME. *abak, on bak*, fr. AS. *on bæc* at, on, or toward the back. See 7th A; BACK.] **1.** Toward or to the back or rear; backward; back; also, in the rear; behind. *Archaic.*
2. *Scot.* **a** Aloof. **b** Ago; as, eight days *aback.*
3. *Naut.* Backward against the mast; — said of sails, or of a ship, when the sails are pressed back by the wind bearing on their forward surfaces. Hence: ***to be taken aback***, to have the square sails pressed back as through bad steering or a sudden shift of wind; figuratively, to be surprised and checked or disconcerted; ***all aback***, entirely aback; stopped or reversed.

ab·ac'ti·nal (ăb·ăk'tĭ·năl; ăb'ăk·tī'năl), *adj.* [*ab-* + *actinal.*] *Zool.* Pertaining to the surface or end opposite to the mouth in a radiate animal. — **ab·ac'ti·nal·ly**, *adv.*

ab·ac'tion (ăb·ăk'shŭn), *n.* *Civil Law.* Cattle stealing.

a·bac'u·lus (ȧ·băk'ū·lŭs), *n.*; *pl.* -LI (-lī). [L., dim. of *abacus.*] A tile used in mosaic; a tessera.

a (ȧ), *pron.* = I, HE, SHE, IT, THEY. *Obs. exc. Dial.*
a (ȧ), *adj.* A shortened form of ONE, *adj.* *Obs. exc. Dial.*
a (ȧ), *v.* Unemphatic form of HAVE.
‖**a** (ā), ‖**ab** (ăb), *prep.* [L.] From; away from; out of; after; by.
A (ä), *n.* *Babylon. Relig.* = AYA.
aal (äl), *n.* = INDIAN MULBERRY **a**.
A'a·lar (ā'ȧ·lär). *Bib.*
aal dye. = MORINDIN.
A·a'lu (ä·äl'ōō), *n.* = AARU.
A·as'ba·l (ā·ăs'bā·ī). *D. Bib.*
Ab (ăb; äb), *n.* [Heb.] See JEWISH CALENDAR.
Aba-. See BANTU.
‖**ab ab·sur'do** (ăb ăb·sûr'dō). [L.] Lit., from absurdity; — said of an argument that an assertion is false because of its absurdity.
ab'ac, *n.* = ABACUS.
a'ba·ca'te (ä'bä·kä'tā), *n.* = AVOCADO.
ab'ack, *n.* An abacus. *Obs.*
ab·ac'tor, *n.* = ABIGEUS.
Ab'a·cuc (ăb'ȧ·kŭk). *Bib.*
‖**a ba'cu·lo** (ā băk'ū·lō). [L.L.] Literally, by means of the rod; — said of an argument, dispute, or the like, in which an appeal is made to force rather than to reason.

āle, chāotic, câre, ădd, ăccount, ärm, ȧsk, sofȧ; ēve, hēre (116), ēvent, ĕnd, silĕnt, makẽr; īce, ĭll, charĭty; ōld, ōbey, ôrb, ŏdd, sŏft, cŏnnect; fōōd, fŏŏt; out, oil; cūbe, ūnite, ûrn, ŭp, circŭs, menü; chair; go; sing; then, thin; nature, verdure (249); K = ch in G. ich, ach (109); boN; yet; zh = z in azure.

‖ Foreign Word. † Obsolete Variant of. + combined with. = equals. Abbreviations, Signs, etc., are explained on pages immediately preceding the Vocabulary.
Numbers within pronunciation parentheses here and in vocabulary refer to §§ in Pron., preceding the Vocabulary.

al·pac'a (ăl·păk'ȧ), *n.* [Sp. *alpaca, alpaco, paco,* fr. Quechua *allpaca, allpaca, paco,* perh. fr. *pacco,* red. Cf. PACO.] **1.** A kind of llama with fine long woolly hair, domesticated in Peru and adjacent countries. It is perhaps a variety of the guanaco (*Lama huanachus*). **2.** Wool of the alpaca. **3. a** A thin kind of cloth made of the hair of the alpaca, often mixed with silk or with cotton. Much of the cloth sold as alpaca is really mohair. **b** A garment, esp. a coat, made of this cloth.

Alpaca. (1/25)

‖**al'par·ga'ta** (äl'pär·gä'tä), *n.* [Sp.] A kind of sandal, usually made of hemp.

al'pa·so'tes (äl'pä·sō'tās), *n.* [Sp.] The Mexican tea (*Chenopodium ambrosioides*). Its leaves are used for seasoning. *Phil. I.*

Al'pax (ăl'păks), *n.* A trade-mark applied to a strong light alloy, 87 per cent aluminum and 13 per cent silicon; hence [*sometimes not cap.*], the alloy bearing this trade-mark.

al·peen' (ăl·pēn'), *n.* [Ir. *ailpín.*] A cudgel. *Ireland.*

Al'pen (ăl'pĕn), *adj.* Of or pertaining to the Alps.

al'pen·glow' (ăl'pĕn·glō'), *n.* A reddish glow or, sometimes, the entire series of light phenomena seen near sunset or sunrise on the summits of mountains; specif., a re-illumination sometimes observed after the summits have passed into shadow, supposed to be due to a curving downward (refraction) of the light rays from the west resulting from the cooling of the air.

al'pen·horn' (-hôrn'), **alp'horn'** (ălp'-), *n.* [G.] A curved wooden horn about three feet long, with a cupped mouthpiece and a bell, used by the Swiss to sound the *ranz des vaches* and other melodies. Its notes are open harmonics of the tube.

al'pen·stock' (ăl'pĕn·stŏk'), *n.* [G.] A long iron-pointed staff used in mountain climbing, esp. in the Alps.

al'pen·stock'er (-ẽr), *n.* A mountain climber. *Colloq.*

al·pes'tral (ăl·pĕs'trăl), *adj.* [L. *alpestris.*] Alpine. *Obs.*

al·pes'tri·an (-trĭ·ăn), *n.* An Alpine climber.

al·pes'trine (ăl·pĕs'trĭn), *adj.* [L. *alpestris.*] **1.** Pert. to the Alps, or high mountains; as, *alpestrine* diseases, etc. **2.** *Bot.* Growing on the elevated parts of mountains, but not above the timber line; subalpine.

Alph (ălf), *n.* The "sacred river" in Coleridge's poem *Kubla Khan.*

al'pha (ăl'fȧ), *n.* [L., fr. Gr. *alpha,* fr. the Phoenician; akin to Heb. *āleph* (see ALEPH).] **1.** The first letter (Α, α) of the Greek alphabet. See A; cf. ALPHABET, *Ety.* **2.** Hence, the first or beginning; formerly, specif., the chief; as, Plato was the *alpha* of the wits.

I am *Alpha* and Omega, the beginning and the end. *Rev.* xxii. 13.

3. a An instance of the letter A, a, written, printed, etc. **b** As a numeral, 1. Cf. GREEK NUMERAL. **4.** Used variously, often in the form α or A, for classifying, as: **a** *Astron.* To designate some bright star (usually the brightest star) of a constellation; as, *Alpha* (α) Lyrae. **b** *Chem.* To distinguish one of two or more isomers or modifications; as, *alpha*-cellulose; also, to indicate the position of substituting atoms or groups in certain compounds; as, *alpha*-naphthol or α-naphthol. In the case of acids it commonly indicates that the substituent is in union with the carbon atom to which the carboxyl group is attached.

al'pha-. *Chem.* A combining form. See ALPHA, *n.*, 4 b.

alpha and omega. The beginning and ending; hence, the chief; the whole. See ALPHA, 1. *Rev.* i. 8.

The *alpha and omega* of science. *Sir J. Herschel.*

al'pha·bet (ăl'fȧ·bĕt or, *esp. Brit.*, -bĭt), *n.* [L. *alphabetum,* fr. Gr. *alpha* + *bēta,* the first two Greek letters.] **1.** The letters of a language arranged in the customary order; a series or set of letters or signs which form the elements of a written language; a collection of the signs for the sounds of a language. Cf. IDEOGRAM, SYLLABARY.

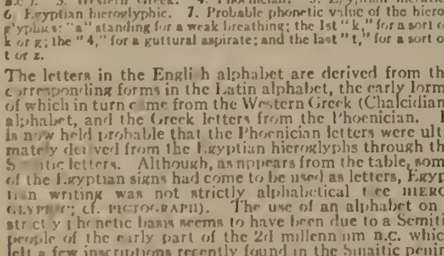


Table showing descent of English Alphabet. 1. Present English. 2. Early Latin (which did not adopt Y and Z until the 1st century B.C.). 3. Western Greek. 4. Phoenician. 5. Egyptian hieratic. 6. Egyptian hieroglyphic. 7. Probable phonetic value of the hieroglyphics: "a" standing for a weak breathing; the 1st "k," for a sort of k or g; the "4," for a guttural aspirate; and the last "t," for a sort of t or z.

The letters in the English alphabet are derived from the corresponding forms in the Latin alphabet, the early forms of which in turn came from the Western Greek (Chalcidian) alphabet, and the Greek letters from the Phoenician. It is now held probable that the Phoenician letters were ultimately derived from the Egyptian hieroglyphs through the Semitic letters. Although, as appears from the table, some of the Egyptian signs had come to be used as letters, Egyptian writing was not strictly alphabetical (see HIEROGLYPHIC; cf. PICTOGRAPH). The use of an alphabet on a strictly phonetic basis seems to have been due to a Semitic people of the early part of the 2d millennium B.C. which left a few inscriptions recently found in the Sinaitic peninsula and deciphered. A number of the characters in these inscriptions are intermediate between certain Egyptian hieroglyphs and letters of the Phoenician alphabet, thus apparently bridging the gap between them. The Western Greek and Phoenician alphabets are not here given entire, those letters being omitted which were not adopted in writing Latin. The ordinary Greek alphabet, afterward generally adopted, is an Eastern Greek alphabet, differing slightly in its forms from the Western Greek. The parent of the Latin alphabet was a form of the Western Greek alphabet brought to Italy in early times by Greek colonists. See ANGLO-SAXON ALPHABET, LATIN ALPHABET, A, B, C, etc. **2.** The simplest rudiments; elements; A B C.

The very *alphabet* of our law. *Macaulay.*

3. *Obs.* **a** An index. **b** A complete or long series.

al'pha·bet (ăl'fȧ·bĕt or, *esp. Brit.*, -bĭt), *v. t.*; -BET'ED; -BET'ING. To arrange alphabetically; to alphabetize.

al'pha·bet·ar'i·an (ăl'fȧ·bĕt·âr'ĭ·ăn), *n.* A learner or student of the alphabet; an abecedarian.

al'pha·bet'a·ry (-bĕt'ȧ·rĭ), *adj.* Alphabetic; hence, rudimentary. *Obs.* — *n.* An alphabetarian. *Obs.*

alphabet book. A book for teaching the alphabet.

al'pha·bet'ic (-bĕt'ĭk), **al'pha·bet'i·cal** (-ĭ·kăl), *adj.* **1.** Pertaining to, making use of, furnished with, or expressed by, the letters of an alphabet; as, *alphabetic* writing. **2.** Literal. *Obs.* "*Alphabetical* servility." *Milton.* — **al'pha·bet'i·cal·ly,** *adv.*

al'pha·bet'ics (-ĭks), *n.* The science dealing with the representation of spoken sounds by means of letters. *A. J. Ellis.*

al'pha·bet'i·form (ăl'fȧ·bĕt'ĭ·fôrm), *adj.* Having the form of an alphabet; resembling letters; — said specifically of certain figures on rocks of the cave period in Europe.

al'pha·bet·ism (ăl'fȧ·bĕt·ĭz'm; -bĭt·ĭz'm), *n.* The use of letters as symbols; specif.: **a** The representation of spoken sounds by vowel and consonantal, rather than syllabic, signs. **b** The use of A B C, X Y Z, or the like, as a signature or nom de plume.

al'pha·bet·ist, *n.* One who studies or invents alphabets.

al'pha·bet·ize (-īz), *v. t.*; -IZED (-īzd); -IZ'ING (-īz'ĭng). **1.** To arrange alphabetically. **2.** To furnish with, or express by, an alphabet. — **al'pha·bet'i·za'tion** (-bĕt'ĭ·zā'shŭn; -ī·zā'shŭn), *n.*

al'pha·bet·iz'er (ăl'fȧ·bĕt·īz'ẽr; -bĭt·īz'ẽr), *n.* One who or that which alphabetizes.

alphabet method. = A-B-C METHOD.

alphabet plant. The Pará cress.

alphabet soup. A soup containing pieces of macaroni cut in the shapes of letters.

al'pha brass (ăl'fȧ). Brass composed of a solid solution of zinc in copper, containing up to 36 per cent zinc.

al'pha–cel'lu·lose, *n.* *Chem.* See CELLULOSE.

al'pha–eu·caine', *n.* See EUCAINE.

alpha iron. That allotropic form of pure iron which exists normally at all temperatures below 760° C.

al'pha–naph'thol, *n.* See NAPHTHOL.

al'pha–naph'thyl·a·mine', *n.* See NAPHTHYLAMINE.

alpha particle. *Physics.* A positively charged particle, present in the alpha rays, consisting of four protons and two electrons, and forming a constituent of the nuclei of many atoms. It is identical with the nucleus of the helium atom, and has a mass approximately four times that of a hydrogen atom, and a positive electric charge twice that of the hydrogen nucleus. Cf. ALPHA RAY.

alpha radiator. *Physical Chem.* A radioactive substance which radiates alpha rays.

alpha ray. *Physics & Chem.* A ray consisting of the positively charged particles emitted during certain radioactive transformations. Cf. ALPHA PARTICLE.

alpha score. A score made on the alpha test. The possible maximum is 212.

alpha test. An intelligence test originally used in the United States Army in 1917–1918. It consists mostly of printed questions on number relations, verbal relations, judgment, and general information. Cf. BETA TEST.

al'pha·to·lu'ic (ăl'fȧ·tō·lū'ĭk; -tŏl'ū·ĭk), *adj.* [*alpha* + *toluic.*] Phenylacetic.

al'pha–trux·il'line, *n.* See TRUXILLINE.

Al·phe'an (ăl·fē'ăn), *adj.* Of or pertaining to Alpheus.

al·phen'ic (ăl·fĕn'ĭk), *n.* [F. *alphénic,* fr. Sp. *alfeñique,* fr. Ar. *al-fānīd,* fr. Per. *fānīd, pānīd,* sugar.] *Med.* The crystallized juice of the sugar cane; sugar candy.

Al·phe'us (ăl·fē'ŭs), *n.* [L., fr. Gr. *Alpheios.*] Also **Al·phe'ius** (ăl·fē'yŭs). *Gr. Myth.* A god associated with the largest river of the Peloponnesus. He fell in love with the nymph Arethusa and pursued her under the sea to Sicily, where she was transformed into the fountain Arethusa on the island of Ortygia, which became a part of Syracuse.

Al'phe·us (ăl'fē·ŭs), *n.* [L. *Alphaeus* or Gr. *Alphaios.*] Masculine proper name. F. *Alphée* (ȧl'fā'); It. & Sp. *Alfeo* (äl·fā'ō); G. *Alpheus* (äl·fā'o͝os).

al·phit'o·man'cy (ăl·fĭt'ō·măn'sĭ), *n.* [Gr. *alphiton* barley meal + *-mancy.*] Divination by means of barley flour and honey loaves. *Obs.*

al·phit'o·mor'phous (-môr'fŭs), *adj.* [Gr. *alphiton* barley meal + *-morphous.*] *Bot.* Resembling barley meal; — applied to certain parasitic fungi.

al'phol (ăl'fōl; -fŏl), *n.* [*alpha* (see NAPHTHOL) + *-ol.*] *Pharm.* A reddish-white powder (1-naphthyl salicylate, $HOC_6H_4COOC_{10}H_7$), used as an intestinal antiseptic and antirheumatic.

Al'phonse' (ăl'fôns'), *n.* [F.] Masc. name. See ALPHONSO.

Al·phon'sine (ăl·fŏn'zēn), *n.* Feminine proper name.

Al·phon'sine (ăl·fŏn'sĭn), *adj.* Of or relating to Alfonso X, or the set of astronomical tables prepared in 1252 by his order. Cf. ARZACHEL'S TABLES.

Al·phon'sist (ăl·fŏn'sĭst), *n.* A supporter of Alfonso XII of Spain (1874–85), against the Carlists and Republicans. — **Al·phon'sism** (-sĭz'm), *n.*

Al·phon'so (ăl·fŏn'zō), *n.* [Sp. *Alfonso,* of G. origin; cf. OHG. *Adalfuns,* fr. *adal* family, noble family + *funs* ready. The spelling with *ph* is perh. due to the F. form *Alphonse.*] Masc. proper name. L. *Alphonsus* (ăl·fŏn'sŭs); F. *Alphonse* (ȧl'fôns'); It. *Alfonso* (äl·fôn'sō); Sp. *Ildefonso* (ēl'dā·fōn'sō), *Alfonso* (äl·fōn'sō), *Alonso* (ä·lōn'sō); Pg. *Affonso* (ȧ·fôɴ'so͞o); G. *Alfons* (äl'fôns).

al'phos (ăl'fŏs), *n.* [Gr., whence L. *alphus.*] *Med.* A form of leprosy or psoriasis.

al·pho'sis (ăl·fō'sĭs), *n.* [NL., fr. Gr. *alphos* leprosy.] *Med.* Absence of pigment, as in leucoderma or albinism.

al'phyl (ăl'fĭl), *n.* [*alkyl* + *phenyl.*] *Chem.* Any univalent aromatic hydrocarbon radical; specif., one whose free valence belongs to a side chain, as benzyl. Cf. ARYL.

Al'pid (ăl'pĭd), *n.*; *pl.* ALPIDS (-pĭdz), ALPIDES (-pĭ·dēz). [See 1st ALP.] One of a group of mountain ranges in which folding continued into Tertiary time, as the Alps. The Alpids have the same general trend as the Altaids.

al·piou' (ăl·pū'), *n.* [F. *alpiou,* fr. It. *al più* for the more.] In the game of basset, a mark made on a winning card to show that the winner doubles his stake. *Obs.*

al'pi·gene (ăl'pĭ·jēn), *adj.* [L. *Alpes* Alps + *-gen.*] Growing in alpine regions.

Al'pine (ăl'pīn; -pĭn; 277), *adj.* [L. *Alpinus.*] **1.** Of, pertaining to, or like, the Alps, or [*not cap.*] any lofty mountain; as, *alpine* snows; *alpine* plants. **2.** [*not cap.*] Pert. to, or growing in, the Alpine zone. — **al'pine·ly,** *adv.*

al'pine (ăl'pīn; -pĭn), *n.* **1.** A kind of soft felt hat, such as those worn in the Alps. **2.** *Hort.* A plant of mountain summits or boreal regions grown in an alpine garden.

alpine anemone. A silky-foliaged herb (*Anemone tetonensis*) with bluish-white flowers, of the Rocky Mountains.

alpine aster. A Rocky Mountain herb (*Aster meritus*) with violet-purple flowers.

alpine azalea. A low-branching shrub (*Loiseleuria procumbens*) of the heath family, found in high mountain regions in the Northern Hemisphere.

alpine bartsia. A semiparasitic herb (*Bartsia alpina*) of arctic America and northern Europe, with opposite leaves, and showy irregular purple flowers in a leafy spike.

alpine beardtongue. A common Rocky Mountain perennial herb (*Pentstemon ellipticus*) with a partly woody stem and violet-purple flowers.

alpine bent grass. See GRASS, *Table.*

alpine birch. A low shrub (*Betula nana*) native in high northern regions.

alpine bistort. A slender perennial herb (*Bistorta vivipara*) with oblong leaves and reddish-white flowers, found in northern regions.

alpine brook saxifrage. A white-flowered herb (*Saxifraga rivularis*) found on mountain summits and in arctic regions of the Northern Hemisphere.

alpine campion. A low, tufted herb (*Viscaria alpina*) with handsome pink flowers, found throughout the North Temperate Zone, esp. at high altitudes.

alpine catchfly. A European white-flowered herb (*Silene alpestris*), sometimes cultivated.

alpine chough. See CHOUGH.

alpine clover. A European mountain clover (*Trifolium alpinum*) with heads of pink flowers.

alpine cress. A low, white-flowered, perennial herb (*Cardamine bellidifolia*) found on mountain summits and in arctic regions of the North Temperate Zone.

Alpine dock. A tall, coarse, rough-leaved dock (*Rumex alpinus*) of the Alps, with drooping flowers and fruits in large, branching clusters.

alpine eyebright. A showy New Zealand perennial herb (*Euphrasia monroi*) with yellow and white flowers.

alpine fir. A tall Rocky Mountain timber tree (*Abies lasiocarpa*).

alpine fireweed. A perennial herb (*Chamaenerion latifolium*) with reddish-white flowers, found in arctic America and south through the Rocky Mountains to Colorado. It is often common after forest fires.

alpine forget-me-not. A Rocky Mountain perennial herb (*Eritrichium howardi*) with ashy-yellowish foliage and dark-blue flowers.

alpine garden. A garden on rock ledges or among rocks, esp. one in the Alpine zone or for growing alpine plants. Cf. ROCK GARDEN.

alpine geranium. The plant *Geranium sibiricum,* common in Alaska and alpine regions of Siberia.

alpine glacier. A glacier formed among summits and descending a mountain valley.

alpine goldenrod. Rocky Mountain goldenrod (*Solidago ciliosa*).

alpine hemlock. A valuable timber tree (*Tsuga mertensiana*) found in the northern Rocky Mountains.

alpine holy grass. A smooth slender grass (*Hierochloë alpina*) found in northern regions.

alpine lady fern. A fern (*Athyrium alpestre*) with deeply cut leaf segments, found in the Rocky Mountains.

alpine larch. A larch (*Larix lyallii*) growing in the higher mountains of the northwestern United States and of British Columbia.

alpine lousewort. A white-flowered perennial herb (*Pedicularis contorta*) found on the mountains of western North America.

alpine molewort. The alpine rock cress.

alpine oat grass. See GRASS, *Table.*

alpine Parnassia. A white-flowered herb (*Parnassia kotzebuei*) found in Siberia, Greenland, and the Rocky Mountains.

alpine poppy. **a** = ICELAND POPPY. **b** A tiny yellow-flowered Rocky Mountain poppy (*Papaver pygmaeum*).

Alpine race. *Ethnol.* That one of the three great races of Europe distinguished by W. Z. Ripley which he assigns to the mountainous and hilly central portions and characterizes as brachycephalic, moderate in stature, and of brunet complexion. Cf. MEDITERRANEAN RACE, TEUTONIC RACE.

alpine rice grass. See GRASS, *Table.*

alpine rock cress. A small European cress (*Arabis alpina*) with white flowers, often cultivated in rockeries.

alpine rose. **a** Any of various European and Asiatic alpine rhododendrons. See RHODODENDRON. **b** = EDELWEISS **a.**

al'pin·ry (ăl'pĭn·rĭ), *n.*; *pl.* -RIES (-rĭz). An alpine garden.

Alpine salamander. A tailed amphibian (*Salamandra atra*) occurring in the Alps. Many ova may be found at one time in the uterus, but only two, remaining within the uterus and feeding upon the yolk of the undeveloped eggs, become tadpoles. These are born after completing metamorphosis and reaching a length of about two inches.

alpine sedge. A Rocky Mountain sedge (*Carex scopulorum*) with sharply triangular culms.

alpine spring beauty. A fleshy perennial herb (*Claytonia megarrhiza*) found on summits of the Rocky Mountains.

alpine spruce. The alpine hemlock.

alpine strawberry. A variety (*Fragaria vesca monophylla*) of the common strawberry with unifoliolate leaves.

Alpine structure. *Geol.* See FAN FOLD.

alpine umbrella plant. A Rocky Mountain perennial herb (*Eriogonum androsaceum*) with white foliage and yellowish-white flowers.

alpine whitebark pine. A timber tree (*Pinus albicaulis*) found in the Rocky Mountains and in California.

alpine whorl grass. See GRASS, *Table.*

alpine woodsia. A slender fern (*Woodsia alpina*) of northern North America, with shining chestnut-colored stipes, bipinnate fronds, and usually distinct marginal sori; — called also *flower-cup fern.*

Alpine zone. *Biogeog.* The Arctic-Alpine zone, or the Arctic zone of a mountain. See ARCTIC ZONE.

Al·pin'i·a (ăl·pĭn'ĭ·ȧ), *n.* [NL., after Prospero *Alpin,* It. botanist.] *Bot.* **a** A large genus of herbs of the ginger family (Zingiberaceae) found in Asia, Australia, and Polynesia. They have showy, very irregular flowers and large aromatic rootstocks. *A. galanga* and *A. officinarum* yield galingale, or chinaroot. **b** [*not cap.*] A plant of this genus.

‖**Al'pen·glühn'** (äl'pĕn·glün'), *n.* [G.] = ALPENGLOW.
alphabetical notation. See NOTATION, *b.*
Al·phae'us. Var. of 2d ALPHEUS, the preferred Biblical form.
alpha privative. See A-, 7; PRIVATIVE, 1.
Al·phard' (ăl·färd'), *n.* [Ar. *al-fard* the solitary one.] See STAR.
Al·phec'ca (ăl·fĕk'ȧ), *n.* [Ar. *al-fakkah,* fr. *fakka* to dislocate or break open.] See STAR, *Table.*
Al·phe'rat (ăl·fē'răt), **Al·phe'ratz** (-răts), *n.* [Ar. *al-faras* the mare.] See STAR, *Table.*
al'phin. † ALFIN.
alp'horn', *n.* = ALPENHORN.
al'phyn. † ALFIN.
Al'pi·an, *adj.* Alpine. *Rare.*
al'pin. Alpine. *Ref. Sp.*
al'pin·esque' (ăl'pĭn·ĕsk'), *adj.* See -ESQUE.
‖**Al·pi'ni,** *n.*, *pl.* of ALPINO.

CHIEF FOREIGN ALPHABETS

Showing the Name of the Letter (for the Hebrew, Arabic, and Greek), the Roman Transliteration (used in the Etymologies in this Dictionary), and, in parentheses, the Websterian Phonetic Symbol.

HEBREW[1]

א	aleph	’	([1])
ב	beth	b, bh	(b)
ג	gimel	g, gh	(g)
ד	daleth	d, dh	(d)
ה	he	h	(h)
ו	vau	w, v	(w)
ז	zayin	z	(z)
ח	cheth	ḥ	(κ)
ט	teth	ṭ	(t)
י	yodh	y	(y)
כ	caph	k, kh	(k)
ל	lamedh	l	(l)
מ	mem	m	(m)
נ	nun	n	(n)
ס	samekh	s	(s)
ע	‘ayin	‘	([1])
פ	pe	p, ph	(p)
צ	sadhe	ts	(s sharp)
ק	koph	q	(k)
ר	resh	r	(r)
שׂ	sin	ṡ	(s)
שׁ	shin	sh	(sh)
ת	tav	t, th	(t)

ARABIC[2]

ا	alif	’ ([3])	([4])
ب	bā’	b	(b)
ت	tā’	t	(t)
ث	thā’	th	(th)
ج	jīm	j	(j)
ح	ḥā’	ḥ	(h)
خ	khā’	kh	(κ)
د	dāl	d	(d)
ذ	dhāl	dh	(t͟h)
ر	rā’	r	(r)
ز	zāy	z	(z)
س	sīn	s	(s)
ش	shīn	sh	(sh)
ص	ṣād	ṣ	(s)
ض	ḍād	ḍ	(t͟h)
ط	ṭā’	ṭ	(t)
ظ	ẓā’	ẓ	(z)
ع	‘ayn	‘	([5])
غ	ghayn	gh	(κ)
ف	fā’	f	(f)
ق	qāf	q	(k)
ك	kāf	k	(k)
ل	lām	l	(l)
م	mīm	m	(m)
ن	nūn	n	(n)
ه	hā’	h	(h)
و	wāw	w	(w)
ي	yā’	y	(y)

GREEK[6]

Α α	alpha	a	(ä)
Β β	beta	b	(b)
Γ γ	gamma	g	(g)
Δ δ	delta	d	(d)
Ε ε	epsilon	e	(ĕ)
Ζ ζ	zeta	z	(z)
Η η	eta	ē	(ā)
Θ θ	theta	th	(th)[7]
Ι ι	iota	i	(ē)
Κ κ	kappa	k	(k)
Λ λ	lambda	l	(l)
Μ μ	mu	m	(m)
Ν ν	nu	n	(n)
Ξ ξ	xi	x	(ks)
Ο ο	omicron	o	(ŏ)
Π π	pi	p	(p)
Ρ ρ	rho	r, rh	(r)
Σ σ ς	sigma	s	(s)
Τ τ	tau	t	(t)
Υ υ	upsilon	y, u	(ü, o͞o)
Φ φ	phi	ph	(f)[8]
Χ χ	chi	ch	(k, κ)[9]
Ψ ψ	psi	ps	(ps)
Ω ω	omega	ō	(ō)

RUSSIAN[10]

А а	a	(ä)
Б б	b	(b, p)
В в	v	(v, f)
Г г	g	(g, k)
Д д	d	(d)
Е е	e	(yā, ā, yō, yō, yĕ, ĕ)
Ж ж	zh	(zh, sh)
З з	z	(z)
И и Й й	i, ĭ	(ē, y)
I i[10]	i	(ē)
К к	k	(k)
Л л	l	(l)
М м	m	(m)
Н н	n	(n)
О о	o	(ō, ŏ)
П п	p	(p)
Р р	r	(r)
С с	s	(s)
Т т	t	(t)
У у	u	(o͞o)
Ф ф	f	(f)
Х х	kh	(κ)
Ц ц	ts	(ts)
Ч ч	ch	(ch, tsh)
Ш ш	sh	(sh)
Щ щ	shch	(shch)
Ъ ъ[10]	*	—
Ы ы	y	(wē, üē, ĭ)
Ь ь	e, —, ’†	(ĕ, —)
Ѣ ѣ[10]	ye	(yĕ, ĕ)
Э э[10]	e	(ĕ)
Ю ю	yu	(yo͞o [ū])
Я я	ya	(yä, yā, ē)
Ѳ ѳ[10]	f	(f)
Ѵ ѵ[10]	y	(ē)

* marks nonpalatalization
† marks palatalization

GERMAN

𝔄 𝔞	(ä)
𝔄̈ 𝔞̈	(â, ĕ)
𝔅 𝔟	(b, p)
ℭ 𝔠	(k, ts, s)
ℭ𝔥 𝔠𝔥	(κ)
𝔇 𝔡	(d, t)
𝔈 𝔢	(ā, ĕ)
𝔉 𝔣	(f)
𝔊 𝔤	(g, κ, k)
ℌ 𝔥	(h)
ℑ 𝔦	(ē, ĭ)
ℑ 𝔧	(y)
𝔎 𝔨	(k)
𝔏 𝔩	(l)
𝔐 𝔪	(m)
𝔑 𝔫	(n)
𝔒 𝔬	(ō, ô, ŏ)
𝔒̈ 𝔬̈	(û)
𝔓 𝔭	(p)
𝔔 𝔮 (k)	Only in qu pron. kv
ℜ 𝔯	(r)
𝔖 𝔰 ſ	(z, s)
𝔖𝔠𝔥 ſ𝔠𝔥	(sh)
𝔗 𝔱	(t)
𝔘 𝔲	(o͞o, o͝o)
𝔘̈ 𝔲̈	(ü)
𝔙 𝔳	(f, v)
𝔚 𝔴	(v)
𝔛 𝔵	(ks)
𝔜 𝔶	(ē, ĭ, ü)
ℨ 𝔷	(ts)

SANSKRIT[11]

अ	a	(ä *or* ŭ)
इ	i	(ĭ)
उ	u	(o͝o)
ऋ	ṛ	(’r *or* rĭ)
ऌ	ḷ	(’l *or* lĭ)
ए	e	(ā)
ओ	o	(ō)
क	k	(k)
ख	kh	(kh)[12]
ग	g	(g)
घ	gh	(gh)[12]
ङ	ṅ	(ng)
च	c	(ch)
छ	ch	(chh)[12]
ज	j	(j)
झ	jh	(jh)[12]
ञ	ñ	(n)[13]
ट	ṭ	(t)[14]
ठ	ṭh	(th)[12, 14]
ड	ḍ	(d)[14]
ढ	ḍh	(dh)[12, 14]
ण	ṇ	(n)[14]
त	t	(t)
थ	th	(th)[12]
द	d	(d)
ध	dh	(dh)[12]
न	n	(n)
प	p	(p)
फ	ph	(ph)[12]
ब	b	(b)
भ	bh	(bh)[12]
म	m	(m)
य	y	(y)
र	r	(r)
ल	l	(l)
व	v	(v)
श	ś	(sh *or* s)
ष	ṣ	(sh)[14]
स	s	(s)
ह	h	(h)
ं	ṁ	([15])
ः	ḥ	([16])

1. See HEBREW ALPHABET and ALEPH, BETH, etc., in Vocab. 2. In the names of the Arabic letters ā, ī, and ū respectively are pronounced like *a* in *father*, *i* in *machine*, *u* in *rude*. 3. When initial, or hamza; otherwise represented by a macron. 4. Like the Greek smooth breathing. See ALIF, in Vocab. 5. A deep guttural, or glottal sound. 6. See ALPHA, BETA, GAMMA, etc., in Vocab. 7, 8, 9. In classic Greek, about like *th*, *ph*, *kh*, in *hothouse*, *uphill*, *inkhorn*. 10. In the reformed orthography of Russia, Ѣ is replaced by е, Э partly by е, і and ѵ by и, Ѳ by ф, and the sign ъ by ' in the middle of words (omitted at the end of words). 11. The alphabet shown here is the Devanagari. The characters for the long vowels (*ā*, *ī*, *ū*, *ṝ*) and diphthongs (*ai*, *au*) resemble those for the corresponding short. When vowels are combined with preceding consonants they are indicated by various strokes or hooks instead of by the signs here given, or, in the case of short *a*, not written at all. There are also many compound characters representing combinations of two or more consonants. 12. See ASPIRATE. 13. As in *inch*. 14. See CEREBRAL. 15. See ANUSVARA. 16. See VISARGA.

bra·vu'ra (brȧ·vū'rȧ; -vōō'rȧ), *n.* [It., prop., bravery, spirit. See BRAVE, *adj.*] **1.** A show of daring or brilliancy; dash; an aggressively confident and commanding air. **2.** *Music.* A florid, brilliant style of music, written to display the range and flexibility of a voice, or the technical force and skill of a performer; virtuoso music.

Listening to a lady amateur skylark it up and down through
The finest *bravura* of Rossini or Mozart. *Irving.*

Syn. — See BRAVERY.

braw (brô; brä), *adj.* [See BRAVE, *adj.*] *Chiefly Scot.* **1.** Well-dressed; handsome; smart; brave; as, a *braw* lad. **2.** Good; fine. "A *braw* night." *Scott.*

brawl (brôl), *v.* [ME. *braulen* to quarrel, boast, *brallen* to cry, make a noise; cf. LG. *brallen* to brag, D. *brallen.*] *Intransitive:* **1.** To quarrel noisily and outrageously; to wrangle; squabble.

He is a fool that *brawleth* openly with his wife. *Golden Boke.*

2. To complain loudly; to raise a clamor.
3. To make a loud confused noise, as the water of a rapid stream running over stones.

Where the brook *brawls* along the painful road. *Wordsworth.*

——, *Transitive:* **1.** To scold; revile. *Obs.* **2.** To dispute about; to utter clamorously. **3.** To drive or force by brawling; — used with *down, out,* etc.

brawl, *n*
wrangle
like, or

Syn. —
brawl
BRANLE
2. *Obs.*
b An ai
brawl'e
brawl'i
ance in
brawl'i
ing sco
brawn (
origin;
of beas
braten
1. Full
strengt
or calf.

2. Anin
3. The
boar, as
4. A pr
pig's he
5. Thic
brawn (
callous.
2. To f
brawned
brawn'e
brawn'y
1. Hav
2. Swol
Syn. —
Ant. —
braws (t
brax'y (
broc sic
ease of
resembl
commo
2. *pl.* B
esp. fro
bray (br
to bray)
akin to
suffrag
BRUIT, s
cry; —
persons

2. To r
——, *Tr*
ant sou

bray, *n.*
2. Any

Perfected Arrangement of Page

New Type (monotype), and New Plates provide clear, readable matter. The Vocabulary Entry (the term to be defined) is in heavy-faced type.

Each vocabulary entry is listed in its alphabetical order, either in the upper or in the lower section of the page, or it is listed in a position which makes it easier to find than if it had been strictly alphabetized. Thus, *brazen age* is between *brazen* and *brazer*, and every other two-word or three-word phrase, as *Brazil nut, bread and butter,* is similarly entered alphabetically, in heavy-faced type, in the main vocabulary.

Verb phrases, such as *break away, break down, break in upon,* shown on opposite page, are entered in heavy-faced italic type, and immediately follow the verb.

Phrases consisting of a preposition and a noun, such as *in any case, in case of,* are alphabetized immediately following the noun, which of course, in this instance, is *case.*

Word Lists, or self-explanatory combinations and phrases, such as *bread bag, bread-baking, breadbox,* are arranged alphabetically with reference to one another, but of course they all follow the word or prefix or combining form from which they are formed. This makes it easier for the reader to find them, as well as to find their meaning, which is indicated under the head word or prefix or combining form.

In the lower section of the page, in smaller type, are various kinds of pure cross references (*brawly,* adv. of *braw; brawniness,* n. See -ness); reformed spellings (brayd); proper names from the Bible that are shown for pronunciation only; foreign language quotations; and a few rare or rare and obsolete words.

The divided page, with all the important entries in heavy-faced type, and the extremely rare, unimportant, and seldom-consulted entries in smaller type in the lower section, has made it possible to include thousands of words that would otherwise have been omitted for lack of space. The divided page also makes it far easier to find the words for which a dictionary is oftenest consulted.

bray (br
fr. OF. *breier* (F. *broyer*), of Teut. origin. See BREAK.] **1.** To pound, beat, rub, or grind small or fine; to spread thin; as, to *bray* ink in printing; also, to beat; thrash.

Though thou shouldest *bray* a fool in a mortar, . . . yet will not his foolishness depart from him. *Prov.* xxvii. 22.

2. To full (woolen fabric) by pounding in soapy water.

bray Var. of BRAE, 2d BRAID, BREY. *Obs. exc. Dial.*

bray'er (brā'ẽr), *n.* One that brays like an ass. *Pope.*

bray'er, *n.* One that brays or grinds; specif., *Print.,* orig., a pestle-shaped implement; now, more commonly, a small hand roller, for braying and spreading ink.

bra·ye'ra (brȧ·yâr'ȧ), *n.* [NL., after *Brayer,* French physician in Constantinople.] *Pharm.* The dried pistillate flowers of an ornamental Abyssinian tree (*Hagenia abyssinica*), used as an anthelmintic; — called also *cusso.*

bray'stone' (brā'stōn'), *n.* *Petrog.* **a** *Local, Scot.* A porous sandstone used for scrubbing. **b** *Australia.* A very porous sandstone of the Lower Cretaceous.

bra'za (brä'thä; brä'sä; 267), *n.* [Sp.] **a** A Spanish measure of length, corresponding to the fathom. In Spain it is equal to 5.48 ft. (1.672 m.), in Argentina to 5.68 ft. (1.732 m.). **b** A measure of area. See MEASURE, *Table.*

braze (brāz), *v. t.* [AS. *bræsian,* fr. *bræs* brass. See BRASS.] To make, cover, or ornament with or as if with brass.

braze (brāz), *v. t.;* BRAZED (brāzd); BRAZ'ING (brāz'ĭng). [F. *braser,* fr. *braise* live coals, of Teut. origin; cf. Sw. *brasa* fire. Cf. BRAISE to cook, BRAZIER a pan, 1st BRAZIL, BREEZE cinder.] **1.** To solder with any alloy relatively infusible as compared with common solder, esp. with hard solder or with brass.
2. To harden. "Now I am *brazed* to it." *Shak.*

braze, *n.* A brazed joint.

braze'-joint'ed, *adj.* United by a brazed joint or joints.

bra'zen (brā'z'n), *adj.* [ME. *brasen,* fr. AS. *bræsen.* See BRASS.] **1.** Made of brass or bronze; like brass, esp. in strength or color. "The *brazen* sky." *Spenser.*
2. Sounding harsh and loud, like resounding brass.
3. Of or showing unabashed assurance or offensive boldness in speech or behavior; impudent; shameless.

Syn. — Brass, brassy; harsh, metallic; bold, insolent.
Ant. — Shy, modest, diffident.

☞ COMBINATIONS are:

brazen-barking, *adj.*	**brazen-footed**	**brazen-imaged**
brazen-browed	**brazen-fronted**	**brazen-leaved**
brazen-clawed	**brazen-gated**	**brazen-lunged**
brazen-colored	**brazen-headed**	**brazen-mailed**
brazen-fisted	**brazen-hilted**	**brazen-pointed**
brazen-floored	**brazen-hoofed**	

bra'zen (brā'z'n), *v. t.;* BRA'ZENED (-z'nd); BRA'ZEN·ING. **1.** To face brazenly; to carry (*it*) impudently or shamelessly; — usually with *out* or *through.*

The deed was done, and must be *brazened* out. *W. H. Dixon.*

2. To make bold or brazen; to harden.

Braced and *brazen'd* up with Christmas wines. *Tennyson.*

brazen age. *Myth.* The bronze age.

bra'zen·face' (brā'z'n·fās'), *n.* An impudent or shameless person. "Well said, *brazenface;* hold it out." *Shak.*

bra'zen·faced' (-fāst'), *adj.* Impudent; shameless. — **bra'zen·fac'ed·ly** (-fā'sĕd·lĭ; -ĭd·lĭ; -fāst'lĭ; 66), *adv.*

braz'er (brāz'ẽr), *n.* One whose work is brazing.

bra'zier (brā'zhẽr; 159), *n.* [ME. *brasiere.* See BRASS.] **1.** One who works in brass; a brazer.

Brazilian morning-glory. An ornamental Brazilian pink-flowered vine (*Ipomoea setosa*), densely covered with bristly, purplish hairs.

Brazilian nutmeg. The aromatic fruit of a South American tree (*Cryptocarya moschata*), unrelated to the true nutmeg.

Brazilian pebble. See PEBBLE, *n.,* 2.

Brazilian pine. The Paraná pine.

Brazilian rhatany. See RHATANY.

Brazilian rosewood. An important Brazilian timber tree (*Dalbergia nigra*), yielding a heavy, hard, dark-colored wood streaked with black.

Brazilian sapphire. A transparent blue variety of tourmaline.

Brazilian sassafras. The South American tree *Nectandra puchury,* whose seed is the pichurim bean.

Brazilian snakeroot. A tropical South American shrub (*Chiococca anguifuga*), the root of which is used by the natives in making a remedy for snake bite.

Brazilian spiderflower. Any of certain Brazilian shrubs of the genus *Tibouchina,* esp. *T. semidecandra,* cultivated for the showy flower.

Brazilian subregion. *Biogeog.* A subdivision of the Neotropical region, including tropical South America.

Brazilian tea. Any of several substitutes for tea: **a** The dried leaves of *Lantana pseudothea.* **b** The dried leaves of *Stachytarpheta indica* or *S. jamaicensis.* **c** = MATÉ, 1 & 2.

Brazilian walnut. **a** The embuia. **b** A Brazilian tree (*Cordia goldieana*) yielding a wood similar to black walnut.

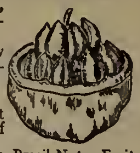
Brazilian wine palm. The muriti palm.

Brazilian yellowwood. Brazilian mahogany.

braz'i·lin (brăz'ĭ·lĭn), *n.* [Cf. F. *brésiline.* See 1st BRAZIL.] *Chem.* A compound, $C_{16}H_{14}O_5$, extracted from brazilwood as a yellow crystalline powder which is white when pure. It is colored intensely red by alkalies on exposure to the air, being oxidized to brazilein (which see).

bra·zil'ite (brȧ·zĭl'īt), *n.* [From *Brazil,* its locality.] *Mineral.* A variety of baddeleyite.

Brazil nut. An oily 3-angled nut, the seed of the ***Brazil-nut tree*** *Bertholletia excelsa.* The large, globular fruit is a woody capsule containing 18 to 24 closely packed nuts.


Brazil Nut. Fruit showing arrangement of nuts.

Brazil red. A color, reddish red-yellow in hue, of high saturation and low brilliance. Cf. COLOR.

Brazil wax. Carnauba wax.

bra·zil'wood' (brȧ·zĭl'wŏŏd'), *n.* [See 1st BRAZIL.] **1.** The heavy dyewood of *Caesalpinia sappan.* See SAPANWOOD. **2.** The similar wood of various tropical American species of *Caesalpinia* or related genera. It is used in cabinetwork, but more especially, being a soluble redwood, in making red and purple dyes. The best is the heartwood of *C. echinata,* but it is also obtained from *C. brasiliensis, C. crista,* and other species. Cf. BRASILETTO.

‖**bre'a** (brā'ä), *n.* [Sp., in senses 1 a, 2.] **1.** **a** Any tree of the genus *Canarium;* also, the soft resin obtained from it, that from *C. luzonicum* being called **bre'a blan'ca** (bläng'kä), and that from *C. pimela,* **bre'a ne'gra** (nā'grä). See CANARIUM, ELEMI. **b** A resinous thorny tree (*Caesalpinia praecox*) of Chile and Argentina, yielding a pale-brown gum. **2.** A viscous asphalt formed by the evaporation of petroleum from oil seeps; maltha, or mineral tar.

breach (brēch), *n.* [ME. *breche,* fr. OF. *breche* (of Teut. origin; cf. OHG. *brecha*) and fr. AS. *bryce;* akin to AS. *brecan* to break. See BREAK; cf. BRAKE the instrument, 1st BRACK, BRASH.] **1.** Act of breaking, or state of being broken, breached, or broken through; — now only in figurative or extended senses.

Ordnance that . . . may . . . save the walls from *breach.* *Marlowe.*

2. A breaking or infraction of a law, or of any obligation or tie; violation; nonfulfillment; as, a *breach* of contract.
3. *Archaic.* **a** A breaking out upon; an inroad; assault.

The Lord had made a *breach* upon Uzza. 1 *Chron.* xiii. 11.

b A bruise; a wound; also, a rupture or hernia.

Breach for *breach,* eye for eye. *Lev.* xxiv. 20.

4. A pause; interruption; interval. *Obs.*
5. A gap or opening made by breaking or battering, as in a wall or fortification; the space between the parts of a solid body rent by violence; a break; a rupture.

Once more unto the *breach,* dear friends. *Shak.*

6. **a** A breaking of waters, as over a vessel. **b** The waters themselves; surge; surf. **c** *Archaic.* A break in a coast line; a harbor. *Judges* v. 17.
7. A breaking up of amicable relations; rupture.

There's fallen between him and my lord An unkind *breach.* *Shak.*

8. The leap of a whale out of water.

Syn. — Rent, cleft, chasm, rift, gap; disruption; infraction, infringement; quarrel, dispute, misunderstanding.

breach (brēch), *v.* *Transitive:* To make a breach or opening in, as a wall, reef, etc.

——, *Intransitive:* **1.** To make or cause a quarrel. *Obs.* **2.** To break the water, as by leaping out, as a whale.

breach'er (-ẽr), *n.* One who makes or commits a breach.

breach of arrest. *Mil.* The offense, committed by an officer in arrest, of leaving without authority the limits within which he is ordered to remain.

breach of faith. A betrayal of confidence or trust.

breach of prison. = PRISON BREACH.

breach of privilege. A violation of the rights of a privileged assembly, as those of the English Parliament, of Congress, or of a State legislature.

breach of promise. Violation of one's plighted word, esp. of a promise to marry.

Actions for *breach of promise* of marriage seem to have first gained a footing in England in the reign of Charles I, when it was held that the promise is a good and not merely a spiritual consideration. Modern Continental law admits very sparingly of such an action. *T. E. Holland.*

breach of the peace. Disorderly conduct, disturbing the public peace. See PEACE.

breach of trust. Violation of one's duty in a matter entrusted to one, as fraudulent appropriation or careless handling of funds.

breach'y (brēch'ĭ), *adj.* **1.** Apt to break fences; as, *breachy* cattle; also, *Dial.,* of animals, wild. **2.** Brackish. *Obs. exc. Dial.*

bread (brĕd), *n.* [AS. *brēad* fragment, morsel, bread; akin to OFris. *brād,* OS. *brōd,* D. *brood,* G. *brot,* ON. *brauth,* Sw. & Dan. *bröd,* Gr. *broutos* beer, L. *fervere* to seethe; basic idea: fermentation. See BREW.] **1.** An article of food made from flour or meal by moistening, kneading, and baking. Previous to baking the dough is usually treated in some way to render it light and porous, as by mixing it with yeast or leaven or baking powder, by moistening with carbonated water, or even by beating it so as to enclose bubbles of air. The yeast or leaven sets up fermentation, giving off the gas carbon dioxide, which inflates, or "raises," the dough; the same gas is generated by the interaction of the acid and the carbonate in baking powder, or of sour milk and soda, or escapes from the carbonated water. In ***salt-rising bread*** fermentation is set up by germs from the air, the salt preventing undesirable processes. In the southern States of the United States, bread made with yeast is commonly called *light bread,* and biscuit, made with baking powder, is called *bread.*

☞ COMBINATIONS and PHRASES in this sense are:

bread bag	**breadcorner**	**bread plate**
bread baker	**breadearning**	**bread pudding**
bread-baking, *adj.*	**bread-eating,** *adj.*	**bread rack**
breadbox	**bread-faced**	**breadseller**
bread crumber	**bread knife**	**bread slicer**
bread-crumbing, *adj.*	**breadmaker**	**bread toaster**
bread crust	**breadmaking**	**bread tray**
bread cutter	**breadman**	**bread wrapper**
bread-cutting, *adj.*	**bread pan**	**bread-wrapping,** *adj.*

2. A piece or portion of bread; a roll; a loaf; as, an altar *bread; breads* for the communicants. *Now Chiefly Eccl.*
3. Food; sustenance; as, to earn one's daily *bread.*

Man doth not live by *bread* only. *Deut.* viii. 3.

4. A preparation resembling bread; as: **a** *Obs.* Piecrust. **b** *Obs.* Sea biscuit. **c** *Dial., U. S.* Corn bread.

bread, *adj.* Of or for bread; as, *bread* pudding; *bread* riots.

bread (brĕd), *v. t.;* BREAD'ED (-ĕd; -ĭd; 119); BREAD'ING. **1.** *Cookery.* To treat with bread, as in covering with bread crumbs preparatory to cooking; as, *breaded* cutlets. **2.** To provide with bread, or sustenance.

bread and butter. Bread spread with butter; hence, *Colloq.,* livelihood.

Bread and butter dates from the reign of Edward IV, before which dripping was used. *W. C. Meller.*

bread'-and-but'ter, *n.* **a** The toadflax. **b** The greenbrier

bra·vu'ra-ish, *adj.* See 1st -ISH.
brawl, *n.* A brawler. *Obs.*
brawl'ie. Var. of BRAWLY. *Scot.*
brawl'some, *adj.* See -SOME.
brawl'y (brôl'ĭ, brä'-), *adv.* of BRAW. *Scot. & N. of Eng.*
brawl'y, *adj.* = BRAW.
brawl'ys (brôl'ĭs; brä'-), *adv.* & *adj.* = BRAWLY. *Scot.*
brawn'i·ly, *adv.* of BRAWNY.
brawn'i·ness, *n.* See -NESS.
brayd. Brayed. *Ref. Sp.*
bray'er-in (brā'yẽr-ĭn), *n.* = ROBIN, *n.,* 2.
bray'ette' (brā'yĕt'). Var. of BRAGUETTE.
brays (brāz). Var. of BREEZE, [cinders.]
brazed (brāzd). Var. of BRACED.
bra'zend. Brazened. *Ref. Sp.*
bra'zen·ly, *adv.* of BRAZEN.
bra'zen·ness, *n.* See -NESS.
bra·ze'ra (brȧ·zâr'ȧ), *n.* = BRAYERA.
bra'zi·let'to. Var. of BRASILETTO.
Bra·zil'-nut' oil. See OIL, *Table.*
Bra·zir'. Var. of BRAZIL.
breach'ful, *adj.* See -FUL.
bread. Var. of BREDE. *Archaic.*
bread. Obs. past & past part. of BREED, *v.*

bread′-and-but′ter, *adj.* **1.** Suggestive of those who are fed bread and butter; boyish or girlish; juvenile. **2.** Associated or connected with getting a livelihood or with supplying material needs; workaday; prosaic; as, a *bread-and-butter* education. **3.** Staple, as opposed to fancy; in common demand.
bread-and-butter letter. Letter of thanks for hospitality.
bread-and-butter plate. See PLATE, *n.*
bread′-and-cheese′, *n.* Sorrel.
bread′bas′ket (brĕd′bȧs′kĕt; -kĭt; 119), *n.* A basket for bread; hence, *Slang*, the stomach.
bread beetle. The drugstore beetle.
bread′ber′ry (brĕd′bĕr′ĭ; -bĕr·ĭ), *n.* Bread softened with hot water and sweetened.
bread′board′ (-bōrd′; 181), *n.* A board on which dough is kneaded or bread cut.
bread crumb. **1.** A crumb of bread; crumbled bread. **2.** The soft or crumbly part of bread.
bread′-crumb′ (brĕd′krŭm′), *v. t.* To cover with bread crumbs; to bread.
bread′-crust′ bomb (-krŭst′). *Geol.* A volcanic bomb with a vesicular crust formed by congelation of liquid rock aloft in the air.
bread′en (brĕd′′n), *adj.* Made of bread. *Rare.*
bread flour. A flour, usually manufactured from a hard wheat, from which bread dough with a good quality of gluten can be made.
bread′fruit′ (brĕd′frōōt′), *n.* **1.** *Bot.* **a** The large round fruit of a Polynesian tree (*Artocarpus communis*). It is from four to seven inches in diameter, and when baked somewhat resembles bread. **b** The tall tree (**breadfruit tree**) which bears this fruit. The bark yields a strong bast fiber and is used to make cloth; the timber is useful; and a birdlime is obtained from the sticky juice. **c** A related African tree (*Treculia africana*), yielding numerous starchy seeds used for making meal. **2.** The screw pine *Pandanus pedunculatus*. *Australia.*

Breadfruit. Branch with Staminate (club-shaped) and Pistillate (rounded) Flower Clusters.

bread grain. Cereals, as wheat and rye, yielding flour of which bread is made; — formerly also **bread corn.**
bread line. A line of persons waiting to receive bread (or other food) given as charity. — **bread′-lin′er** (-līn′ẽr), *n.*
bread mold. Any mold of the family Mucoraceae, esp. the common species *Rhizopus nigricans*.
bread′nut′ (brĕd′nŭt′), *n.* **a** The nut of a tree (*Brosimum alicastrum*) of Jamaica and Mexico. It is roasted and ground into a flour from which bread is made. **b** A related tree (*B. terrabanum*) of British Honduras, the leaves of which furnish fodder. **c** The seeded or fertile variety of the breadfruit.
bread′root′ (-rōōt′; 200), *n.* **1. a** The root of a densely hairy plant (*Psoralea esculenta*) of the western United States, affording a nutritious food. It was the *pomme blanche* of Canadian voyageurs. **b** The plant yielding this root. **2.** The cinnamon fern.
bread sauce. A rich sauce thickened with bread crumbs.
bread stick. A crisp sticklike roll served esp. with soup.
bread′stuff′ (brĕd′stŭf′), *n.* That of which bread is made, as grain or flour; also, bread of any kind or shape.
breadth (brĕdth), *n.* [ME. *brede, breede*, whence later *bredethe*, fr. AS. *brǣdu*, fr. *brād* broad. See BROAD.] **1.** Distance from side to side of any surface or thing; measure across, or at right angles to the length; width. **2.** Anything considered with reference to, or measured by, its width or breadth; as, a *breadth* of cloth.

Green *breadths* of undulating park. *G. Eliot.*

3. Spaciousness or extent; distance.

If there be *breadth* enough in the world. *Shak.*

4. Largeness or liberality, as of views or vision. **5.** Freedom from prudish restraint; also, grossness. **6.** *Art.* Quality of having the details so massed as to produce an impression of largeness and unity. **7.** *Logic.* Extension or denotation.
breadth extreme. *Shipbuilding.* Width of a vessel over the outside of all planking or plating at the widest frame.
breadth index. Cephalic index.
breadth′rid′ers (brĕdth′rīd′ẽrz), *n. pl.* Strengthening timbers near the broadest part of a ship.
breadth′ways′ (-wāz′), **breadth′wise′** (-wīz′), *adv.* In the direction of the breadth. See -WAYS.
bread tree. **a** The breadfruit. **b** In Africa, a tree (*Irvingia barteri*), family Simaroubaceae, having edible nuts.
bread wheat. Any wheat suitable for making into bread flour, esp. varieties of common and club wheats.
bread′win′ner (brĕd′wĭn′ẽr), *n.* The member of a family whose labor supplies its food; one who works for his living; also, a means of gaining a livelihood, as a tool or craft.
bread′win′ning, *n.* The gaining of a livelihood.
bre′aghe (brē′hȧ), *n.* [Ir. *breith* judgment, sentence.] *Irish Tribal Law.* Blood money. *Spenser.*
break, brake (brāk), *n.* [Cf. BRAKE an instrument.] **1.** A bodiless carriage frame used for breaking in horses. **2.** A four-wheeled, straight-body, high-swung pleasure vehicle usually having a capacity of six or more persons in addition to the driver and footman. It is smaller and lighter than the four-in-hand coach or tallyho.
break (brāk), *v.*; *past* BROKE (brōk), *Archaic* BRAKE (brāk); *past part.* BRO′KEN (brō′kĕn), *Obs. or Archaic* BROKE; *pres. part. & verbal n.* BREAK′ING. [ME. *breken*, fr. AS. *brecan*; akin to OS. *brekan*, D. *breken*, OHG. *brehhan*, G. *brechen*, Goth. *brikan* to break, L. *frangere*, W. *brau* fragile, Skr. *giribhraj* breaking forth from mountains. Cf. 3d BRAY, BREACH, BRICK, BRINK, BROOK, *n.*, FRACTION, FRAGILE.] *Transitive:* **1.** In general, to separate into parts or fragments as a result of concussion or of stress; to strain apart or cause to fall apart by any force, whether a thrust, pull, or shear. The separation is characteristically sudden and violent, as distinguished from the gradual processes of *tearing* and *cutting*, and the effect of the force is distributed over a relatively wide area. **2.** Hence, to sever or separate violently, roughly, inexactly, or accidentally (sometimes with the idea of roughly *cutting* or *tearing*); specif.: **a** *Now Dial.* To tear; rend; as, to *break* a gown. **b** To cut or tear up (game or fowl); to carve. **c** To rupture the surface of; specif., to plow (land) preparatory to sowing; — often with *in* or *up*.

Verse *breaks* the ground, and penetrates the brake. *Dryden.*

d To crack (the skin), or the skin of (the head, etc.), as in cudgeling; bruise; wound. **e** To pick or pluck (pineapples). **f** To bunch (cured tobacco leaves) in the center and tear a string away from a lath, preparatory to tying into hands. **3.** To destroy, impair, disable, or overcome by or as if by breaking; specif.: **a** To shatter; to reduce to fragments. **b** *Obs.* To crumble; to make to dissolve. **c** To destroy the completeness of; to remove a part from; as, to *break* a set; to *break* a bottle of wine; to *break* a five-dollar bill (by exchanging it for small currency). **d** To destroy the arrangement of; to throw into disorder; pierce; as, to *break* ranks; to *break* the balls at pool. **e** To destroy the strength, firmness, rigidity, or consistency of; as, to *break* flax. **f** To defeat; as, to *break* a strike. **4.** Hence, to destroy the tone, firmness, spirit, or resiliency of; specif.: **a** To exhaust; to crush the strength or spirit of; as, *broken* by toil. **b** To reduce to subjection; to make tractable; discipline; tame; as, to *break* a colt; to *break* a horse to the saddle. **c** To destroy the financial credit of; bankrupt; ruin; as, to *break* a bank. **d** To destroy the official character and standing of; to cashier; degrade; dismiss; deprive (a person *of* rank, commission, etc.). "*Broken* of his rank." *Stevenson.* **e** To invalidate (a will) by action at law. **5.** To lay open by or as if by breaking; to part (barriers or bonds) so as to obtain ingress or egress; hence, to lay or force open and to pass in or out; to burst in, through, or out; to penetrate. Specif.: **a** To force one's way into, or a passage through. **b** To escape by forcing one's way from; as, to *break* prison. **c** To lay open as by breaking; as, to *break* a package, a pistol. **d** To tear away, separate, or free, by breaking. "*Break* his yoke from off thy neck." *Gen.* xxvii. 40. **e** To make or open by or as if by breaking; as, to *break* a path; to *break* a hole in a wall. **6.** Hence, of immaterial things: **a** To transgress or violate; to do violence to by disregarding; as, to *break* a law, an obligation, or a promise. **b** To lay open, as a purpose; to disclose; divulge. "Katharine, *break* thy mind to me." *Shak.* **c** To impart, as news or information; to broach; — with *to*; as, to *break* news gently; to *break* a purpose cautiously. **d** To utter or give expression to; as, to *break* jests. **7.** To penetrate; cleave; pierce.

What heam shall *break* my night? *Byron.*

8. To sever the continuity of or alter the character of the connection of, as by an irruption; to cause an alteration, cessation, or termination of the continuity of; to interrupt. Specif.: **a** To destroy the continuity of; to cause to be discontinuous; as, to *break* joints (as in Flemish bond; see 3d BOND, 17, *Illust.*); figuratively, to dissolve or terminate; to interrupt; as, to *break* silence, one's sleep, one's journey.

My charms I'll *break*, their senses I'll restore! *Shak.*

b To open or interrupt (an electric circuit or current); — opposed to *make*. **c** To diminish or turn aside the force of; to lessen or avert the shock of, as of a fall or the wind.

I'll rather leap down first, and *break* your fall. *Dryden.*

d To change the direction of, as a line. **9.** To cause in (one) the discontinuance (of a habit or practice); as, to *break* anyone of a bad habit; also, with *off*, to discontinue. "*Break* off thy sins." *Dan.* iv. 27. **10.** To alter the character of; specif.: **a** To soften (lye); — said of hard water. **b** To alter the tone of (colors) by an admixture of another color or shade. **11.** *Baseball.* To cause (a pitched or thrown ball) to deviate from a straight line or from a gravitational curve. **12.** *Billiards, Pool, etc.* To make the opening shot of a game or frame by playing on (an object ball, pyramid, etc.). **13.** *Carding.* To comb roughly. *Now Rare.* **14.** *Cricket.* **a** To impart break to (a ball) in bowling. **b** To so disturb (the wicket) that a bail is removed. **15.** *Fur Dressing.* To soften the fibers of (a skin, etc.), as by scraping. See BREAKER, 1 f. **16.** *Music.* To divide (a chord) by rendering its component tones separately, as in an arpeggio; to divide (a note) into an equivalent series of shorter notes.

Frangere voces means to *break* the long notes into ornamental flourishes; hence musica fracta, broken music. *C. F. A. Williams.*

17. *Phonet.* To subject to breaking (sense 4). **18.** *Sports.* To go beyond or exceed (a record). **19.** *Teleg.* To stop (the sending operator) in order to verify a message or part of a message.
—, *Intransitive:* **1.** To come apart or divide into two or more pieces, usually with suddenness and violence; to part; to burst asunder; to be shattered by dashing; specif., of waves, to curl over and fall in foam or so as to form surf.

Break, break, break on thy cold gray stones, O sea! *Tennyson.*

2. To emerge or depart by breaking bonds or restraints; to burst forth violently; as, a cry *broke* from his lips; the storm *broke;* his anger *broke.*

She *broke* into wild weeping. *Kingsley.*

3. To enter forcibly; to force a way or passage; — with *into.* **4.** To open spontaneously, or by pressure from within, as a bubble, a tumor, a seed vessel, a bag. **5.** To enter into communication; to communicate. *Obs.*

I am to *break* with thee of some affairs. *Shak.*

6. To fail, weaken, or succumb as if by breaking. Specif.: **a** To dissolve; relax; as, the frost *broke;* his attention *broke.* **b** To open up; to be scattered or dissipated; to give way; as, the enemy *broke* before them.

At length the darkness begins to *break.* *Macaulay.*

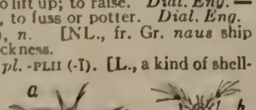
c To be crushed or overwhelmed with sorrow or grief; as, my heart is *breaking.* **d** To become weakened in constitution or faculties; to lose health or strength. **e** To fail in business; to become bankrupt. **7. a** To come apart gradually, or part by part; to disintegrate or dissolve; as, the cream *breaks* in the churn; the frost *breaks* under the influence of the rising sun. **b** To thicken and become cloudy; to decompose partially; as, an oil *breaks* when heated. See BREAKING, *n.* **c** To separate from a solution or a colloidal mixture; — said of mucilage, certain oils, etc. **d** To cease operating because of an interruption or separation, as of parts. **8.** To cease to have relations; to fall out; as, he has *broken* with the past; hence, to terminate friendship.

It cannot be the Volsces dare *break* with us. *Shak.*

9. To make an abrupt or sudden change in a course; specif.: **a** To change the gait; as, to *break* into a run. **b** To undergo an entire reversal; as, the drought *broke.* **10.** To change in register, as a boy's voice at puberty. **11.** To come suddenly (into sight or notice); as, the scene *broke* on his sight; the news story *broke;* specif., to dawn; as, day *breaks.* **12.** Of fish, to leap wholly or partly out of the water. **13.** *Slang.* **a** To assume a chance combination or pattern as balls broken at pool; — said of circumstances; as, things are *breaking* right for me. **b** To become public news with sensational effect; as, the bribery scandal *broke.* **c** To part from a clinch, as pugilists. **14.** *Baseball.* To deviate from a straight line or from a gravitational curve; — said of a pitched or thrown ball. **15.** *Billiards, Pool, etc.* To make the opening shot of a game or frame. **16.** *Cricket.* To change direction on touching the ground; — said of a ball. **17.** *Exchanges.* To fall suddenly and markedly in price; as, coppers *broke* ten points. **18.** *Horse Racing.* To fail to keep the prescribed gait. **19.** *Hort.* **a** To sport; to exhibit variation, as the flowers from hybrid seedlings or those from plants infected with a virus. See BREAKING. **b** To flower before the proper time, as when a carnation bursts the calyx before maturity. **20.** *Music.* **a** To fail in musical quality; as, a singer's voice *breaks* when it is strained. **b** To change from one register to another, as certain wind instruments. **21.** *Phonet.* To undergo breaking (sense 4). **22.** *Teleg.* To break the sending operator.
Syn. — Smash, shatter, burst, disrupt. **Ant.** — See MEND.
break a case. To fasten a crime upon the guilty. *Slang.*
break a flag. To lower a flag.
break a house. *Law.* To remove or set aside with violence and a felonious intent any part of a house or of the fastenings provided to secure it; to commit housebreaking.
break a lance. To engage in a tilt or contest.
break a straw. To fall out; quarrel. *Humorous.*
break away. **a** To disengage oneself abruptly; to leave suddenly and against resistance. **b** To dissolve; to disappear, as clouds or mist. **c** *Boxing.* To disengage oneself from the opponent after a clinch. **d** *Sports.* To start before the proper signal has been given.
break back. **a** To revert, as after an interval or interruption. **b** *Arch.* To return inward from a projection. **c** *Cricket.* To break toward the wicket from the off; — said of a ball.
break bounds. To go beyond the confines or conventions imposed on one.
break bread. To partake of or dispense bread or food, as in the Communion.
break bulk. To destroy the entirety of a load, package, etc., as in beginning to unload, or in transferring in detail, as from boats to cars, or otherwise removing or taking away a part of it; specif., of a bailee, to treat that which is held by bailment in such a manner as to destroy its entirety in the eyes of the law, as by opening a package and removing part of the contents. Such an act if done in breach of trust terminates the bailment, so that in the commission of any subsequent wrongful act the bailee no longer has that character.
break camp. To take the camp to pieces; to pack up and abandon the camping ground. Cf. STRIKE CAMP.
break cover or covert. To start from a covert or lair; — said of game.
break down. **a** To break (anything) so as to force or cause it to fall downward; to demolish; destroy. **b** To crush; overwhelm; as, to *break down* one's strength; to *break down* opposition. **c** To shape or crush by rolling, stamping, or the like, as in metalworking, in granulating the mill cake of gunpowder, etc. **d** To qualify; tone down; as, to *break down* a color. **e** To work (rubber) on the rolls to render it more plastic and eliminate air spaces. **f** *Chem.* To separate into simpler substances; to decompose. **g** *Com.* To separate (an account or a budget) into its component parts or subdivisions. **h** *Sawmilling.* (1) To reduce (large logs) to a convenient size for sawing in the mill. (2) To saw (a log) into cants. (3) To stop (a mill or a machine) because of an accident. **i** To come down by breaking; collapse; as, the coach *broke down.* **j** To fail in health or strength. **k** To fail; to fail in the performance of an undertaking or obligation; to give way, as to grief or despair. **l** *Elec.* To raise the potential difference sufficiently to puncture the insulation.
break even. **a** At faro, to bet that certain cards will win as often as they will lose, or vice versa. Cf. THREE-ON-A-SIDE. **b** *Slang.* To emerge, as from a contest or transaction, with balancing gains and losses.
break forth. **a** To issue; to burst out; to come out suddenly, as sound, light, a smile; — often with *into.* "*Break forth* into singing, ye mountains." *Is.* xliv. 23. **b** *Obs.* To cast off or escape from restraint. **c** To burst into speech; to exclaim suddenly. **d** To sprout with vigor. "The plum *broke forth* in green." *Laurence Housman.*
break ground. **a** To open the earth as for planting; to commence excavation, as for building, siege operations, a canal, or a railroad; hence, to begin to execute any project. **b** *Boxing.* To take a step or steps backward and, usually, to one side. **c** *Naut.* To free the anchor from the bottom.
break in. **a** To force in, as a door. **b** To train; discipline, as a horse. **c** *Print.* To place (an illustration) in the space left for it in the text. **d** To enter forcibly; to interrupt. **e** *Slang.* To gain entree. **f** *Cricket.* To break toward the wicket from the on; — said of a ball.
break in upon. To intrude upon; to approach or interrupt violently or unexpectedly.
break jail. To break prison.
break joints. To dispose bricks, stone, or the like, in such a way that the upright joints of two successive courses are nowhere in line with one another.
break no squares. To create no disturbance; do no harm.
break off. **a** To part or become separated by rupture, or with suddenness and violence. **b** To desist or cease suddenly, as from speaking. **c** To deviate. **d** *Naut.* When sailing by the wind, to veer from the course because of the wind drawing ahead.
break one's neck. To hasten or strive in a breakneck manner. *Colloq.*
break one's shins. To bruise one's shins.
break on the wheel. To execute or torture by stretching upon a wheel or wooden frame, as a St. Andrew's cross, and breaking the limbs with an iron bar. See WHEEL, *n.*, 4.
break out. **a** To take or force out by or as if by breaking; as, to *break out* a pane of glass. **b** To free from an obstruction or encumbrance, as a sled runner from frozen ground, or a road from snow. **c** *Naut.* To take out, unstow, open up, or loosen, preparatory to using; as, to *break out* stores or a sail; to start. A sail is often hoisted in stops and *broken out* by breaking the stops. **d** To burst or break forth; to appear suddenly, as a fire or an epidemic. **e** To show itself in cutaneous eruptions; — said of a disease. **f** To have a rash or eruption on one's skin. **g** To escape from or cast off restraint; to give expression to pent-up emotion or desire. **h** To begin speaking abruptly. **i** *Arch.* To project, as a chimney breast from a wall.
break parle (pärl). To begin a parley. *Obs.*
break Priscian's head (prĭsh′ănz). To infringe or violate the rules of grammar. See PRISCIAN, in *Biog.*
break prison or jail. *Law.* To commit prison breach.
break sheer. *Naut.* To ride out of sheer. See SHEER, *n.*
break shins. To borrow money. *Slang, Brit.*
break squares. To depart from an accustomed order. *Obs.*
break step. To cease keeping step; march out of time.

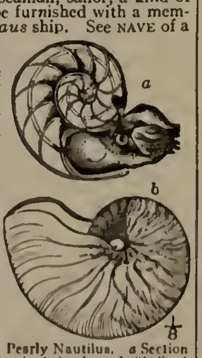
breade. Var. of 2d BRAID, 1st BREAD, BREDE. *Obs. exc. Dial.*	**bread′less**, *adj.* See -LESS. — **bread′less·ness**, *n.*	**bread′stitch′.** Var. of BREDSTITCH. *Archaic.*	**breadth′en** (brĕd′th′n), *v.t. & i.* = BROADEN.	**breadth′less**, *adj.* See -LESS. **breadth molded.** *Shipbuilding.*	= MOLDED BREADTH. [*Obs.* **bread′y** (brĕd′ĭ), *adj* = BREADEN.]

nature myth. A myth which explains or allegorizes natural phenomena.
nature printing. Any process of printing from metallic or other plates which in the original method (*Auer process*) have received an impression, or which in a later method have been made from matrices which have received an impression, as by heavy pressure, of an object such as a leaf, lace, or the like. — **na′ture-print′**, *v. t.* — **nature print.**
nature spirit. A spirit regarded as the life or soul of any natural object (see ANIMISM); — used to distinguish animistic conceptions from conceptions of the supernatural.
nature study. The objective study of any or all the objects and phenomena of nature, as birds, flowers, weather, etc., esp. as a subject of instruction in elementary schools.
nature worship. **a** Any system of religious beliefs and practices toward the forces manifested in nature or supposed to be inherent in natural objects, usually involving prayer and sacrifices to natural phenomena or objects. **b** Worship of the powers of nature personified. **c** Cosmotheism. See PANTHEISM. **d** Figuratively, the cult, as by some poets, of the beauty of nature.
na′tur·ing (nā′tūr·ĭng), *adj.* [After ML. *naturans*, in *natura naturans*.] Creative; creating each thing with its specific nature. "*Naturing* Nature." *Hardy.*
na′tur·ism (nā′tūr·ĭz'm), *n.* **1.** Naturalism.
2. The theory that the earliest religion was nature worship.
na′tur·ist, *n.* A follower of nature; specif., one who believes in, or conforms to, the theory of naturism.
na′tur·is′tic (nā′tūr·ĭs′tĭk), *adj.* Like, or pertaining to, naturism. — **na′tur·is′ti·cal·ly** (-tĭ·kăl·ĭ), *adv.*
na′tur·ize (nā′tūr·īz), *v. t.* To endow with a specific nature. *Rare.*
na′tur·op′a·thy (nā′tūr·ŏp′ȧ·thĭ), *n.* [L. *natura* nature + *-pathy*.] A system of physical culture and drugless treatment of disease by methods supposed to simulate or assist nature. — **na′tur·o·path′** (nā′tūr·ō·păth′), *n.* — **na′tur·op′a·thist** (-ŏp′ȧ·thĭst), *n.* — **na′tur·o·path′ic** (-ō·păth′ĭk), *adj.*
nau-. A combining form, Greek *nau-*, from *naus*, meaning *ship*, as in *nau*pathia, *nau*scopy.
nau′crar (nô′krär), *n.* [Gr. *naukraros*.] A householder member of a naucrary.
nau′crar′y (nô′krĕr′ĭ), *n.*; *pl.* -RIES (-ĭz). [Gr. *naukraria*.] One of the forty-eight subdivisions of the four phylae into which the Athenian people were originally divided.
nau′fra·gous (nô′frȧ·gŭs), *adj.* [L. *naufragus*.] Causing, or marked by, shipwrecks. *Obs.*
nau′ger (*dial.* nō′gẽr), *n.* An auger. *Obs. exc. Dial.*
naught (nôt), *n.* [See NOUGHT.] **1.** The arithmetical character 0; zero; also, a zero or cipher. See CIPHER, *n.*
☞ For this sense, the spelling *naught* is preferred to *nought* in this Dictionary.
2. Var. of NOUGHT.
naught. Var. of NOUGHT, *adj., adv., & v.*
naugh′ti·ly (nô′tĭ·lĭ), *adv.* In a naughty manner; mischievously; specif.: *Obs.* **a** Wickedly; perversely. **b** Poorly; badly.
naugh′ti·ness (-tĭ·nĕs; -nĭs; 119), *n.* **1.** Quality or state of being naughty; specif.: **a** *Obs.* Wickedness; perverseness. **b** *Obs.* Badness; faultiness. **c** Misbehavior, as of a child.
2. A naughty act, impulse, notion, etc.
naugh′ty (nô′tĭ), *adj.*; NAUGH′TI·ER (-tĭ·ẽr); NAUGH′TI·EST.
1. Having nothing; destitute. *Obs.*
2. Worthless; bad; disagreeable; unhealthy. *Obs.*
3. Wicked; morally bad; wrong. *Archaic.*
So shines a good deed in a *naughty* world. *Shak.*
4. Mischievous; wayward; guilty of disobedience or misbehavior; — now chiefly applied to children, or in playful censure.
5. Insignificant; valueless. *Chiefly Scot.*
Syn. — See BAD.
Ant. — Well-behaved, well-mannered, good.
naughty pack. A person of bad character; esp., a loose woman. Written also **naugh′ty–pack′**. *Obs. exc. Dial.*
nau′ja·ite (nô′jȧ·īt), *n.* [From *Naujakasik*, Greenland.] *Petrog.* A nephelite-sodalite-syenite having a poikilitic texture.
nau·ma′chi·a (nô·mā′kĭ·ȧ), *n.*; *pl.* -CHIAE (-ē), -CHIAS (-ȧz). Also **nau′ma·chy** (nô′mȧ·kĭ); *pl.* -CHIES (-kĭz). [L., fr. Gr. *naumachia*, fr. *naus* ship + *machē* fight, battle.] *Rom. Antiq.* **a** A mock sea fight or a spectacle representing a naval battle. **b** A place for such exhibitions, esp. an artificial body of water, surrounded by seats, or in an amphitheater.
nau′mann·ite (nô′măn·īt; nou′-), *n.* [After K. F. *Naumann*, Ger. mineralogist.] *Mineral.* Silver lead selenide, (Ag₂,Pb)Se, in iron-black cubic crystals or massive. Sp. gr., 8.
Naum·bur′gi·a (nôm·bûr′gĭ·ȧ), *n.* [NL., after Johann S. *Naumburg* (1768–99), Ger. botanist.] *Bot.* A genus of perennial bog or marsh herbs of the primrose family (Primulaceae), having as its only known species *N. thyrsiflora*, the tufted loosestrife.
naum′keag (nôm′kēg), *n.* [From *Naumkeag*, former (Indian) name of Salem, Mass., a center of leather and shoe manufacture.] The bottom of the sole of a boot or shoe; — often shortened to **naumk** (nômk).
naum′keag′er (-kēg′ẽr), *n.* A naumkeag scourer.
naunt (nänt), *n.* [From *mine aunt*, *thine aunt*, taken as *my, thy, naunt*.] Aunt. *Archaic & Dial. Eng.*
naun′tle (nän′t'l), *v. t.* To lift up; to raise. *Dial. Eng.* — *v. i.* To strut about; also, to fuss or potter. *Dial. Eng.*
nau·path′i·a (nô·păth′ĭ·ȧ), *n.* [NL., fr. Gr. *naus* ship + *-pathia*.] *Med.* Seasickness.
nau′pli·us (nô′plĭ·ŭs), *n.*; *pl.* -PLII (-ī). [L., a kind of shellfish.] *Zool.* In many crustaceans, a larval form (usually the first stage after leaving the egg) with three pairs of appendages (corresponding to antennules, antennae, and mandibles), a median eye, and little or no segmentation of the body. — **nau′pli·al** (-ăl), **nau′pli·i·form′** (-ĭ·fôrm′), **nau′pli·oid** (-oid), *adj.*



a Nauplius of a Phyllopod (*Artemia*); *b* Nauplius of a Barnacle. Enlarged.

nau′ro·pom′e·ter (nô′rō·pŏm′ē·tẽr), *n.* [Gr. *naus* ship + *rhopē* inclination + *meter*.] *Naut.* An instrument for measuring a ship's heeling at sea. *Rare.*
naus′co·py (nôs′kō·pĭ), *n.* [F. *nauscopie*, fr. Gr. *naus* ship + *-scopy*.] The pretended power or act of discovering ships or land at great distances.
nau′se·a (nô′shē·ȧ; -sē·ȧ, -shȧ; 277), *n.* [L., fr. Gr. *nausia*, fr. *naus* ship. See NAVE of a church.] **1.** Any sickness of the stomach, like seasickness, with a desire to vomit; qualm; a feeling of distress associated with loathing of food.
2. Figuratively, extreme disgust; loathing.
nau′se·ant (nô′shē·ănt; -sē·ănt), *adj.* [L. *nauseans*, pres. part. of *nauseare*.] *Med.* Producing nausea; nauseating. — *n.* A substance which produces nausea.
nau′se·ate (-āt), *v. i.*; -AT′ED (-āt′ĕd; -ĭd; 119); -AT′ING (-āt′ĭng). [L. *nauseare*, *nauseatum*, fr. *nausea*. See NAUSEA.] To become affected with nausea; to feel disgust. — *v. t.* **a** To sicken at; to loathe.
The patient *nauseates* and loathes wholesome foods. *Blackmore.*
b To effect with nausea; to sicken; to cause to feel loathing or disgust; as, the stench *nauseated* him. — **nau′se·a′tion** (-ā′shŭn), *n.*
nau′se·ate, *n.* [L. *nauseatum*.] A nauseant. *Obs.*
nau′seous (nô′shŭs; -shē·ŭs; 277), *adj.* [L. *nauseosus*.] **a** *Obs.* Feeling nausea; inclined to nausea; squeamish. **b** Causing, or fitted to cause, nausea; sickening; loathsome; disgusting; as, a *nauseous* odor; *nauseous* hypocrisy. — **nau′seous·ly**, *adv.* — **nau′seous·ness**, *n.*
Nau′set (nô′sĕt; -sĭt), *n.* An Indian of an extinct Algonquian tribe formerly of Cape Cod.
Nau·sic′a·ä (nô·sĭk′ā·ȧ; nou-), *n.* [L., fr. Gr. *Nausikaa*.] In the Odyssey, the daughter of Alcinoüs, king of the Phaeacians, who found Ulysses on the shore where he had been shipwrecked, and led him to her father's court.
naut (nôt), *n.* [Prob. for *knot*, confused with *nautical mile*.] A sea mile of 2,029 yards, used as a measure for submarine cables. *Australia.*
nautch (nôch), *n.* [Hind. *nāc*, fr. Prakrit *nacca*, fr. Skr. *nṛtya* dancing.] An entertainment consisting chiefly of dancing by professional dancing girls (**nautch girls**). *India.*
nau′ther (*dial.* nô′thẽr), *pron. & conj.* [AS. *nāwther*, *nāhwæther*. See NO, *adv.*; WHETHER. Cf. NOUTHER.] Neither. *Obs. exc. Dial.*
nau′tic (nô′tĭk), *adj.* Nautical. *Now Rare.*
nau′ti·cal (nô′tĭ·kăl), *adj.* [From *nautic*, fr. F. *nautique*, fr. L. *nauticus*, fr. Gr. *nautikos*, fr. *nautēs* a seaman, sailor, fr. *naus* ship. See NAVE of a church.] Of or pertaining to seamen, navigation, or ships; as, *nautical* skill. — **nau′ti·cal·ly**, *adv.*
Syn. — Marine, maritime. See NAVAL.
nau′ti·cal, *n.* One having to do with nautical things. *Humorous.*
Nautical Almanac (American). A mathematical publication prepared at the Naval Observatory in Washington. It contains tables of the position of various heavenly bodies at stated times, and other information, for the use of navigators, geodesists, and astronomers. Cf. EPHEMERIS, 3 **a**.
nautical astronomy. That part of practical astronomy by which the position of a ship is found from astronomical observations.
Nautical Box. *Astron.* See ARGO, 2.
nautical day. A day of 24 consecutive solar hours, reckoned from noon to noon.
nautical distance. The length in nautical miles of the rhumb line joining any two places on the earth's surface.
nau′ti·cal′i·ty (nô′tĭ·kăl′ĭ·tĭ), *n.* Quality of being nautical.
nautical mile. See 2d MILE.
nautical planisphere. The projection of the terrestrial globe on a plane, for navigators' use.
nautical stars. Stars selected with especial reference to their fitness for navigators' use in ascertaining longitude and latitude.
nautical surveying. = MARINE SURVEYING.
nautical tables. Arithmetical tables especially adapted to facilitate the navigator's work in solving problems, particularly in nautical astronomy.
nau′tics, (nô′tĭks), *n.* **a** Science or art of navigation; — usually construed as *sing.* **b** Water sports, as boating or swimming; — usually construed as *pl.*
nau′ti·form (nô′tĭ·fôrm), *adj.* [Gr. *naus* ship + *-form*.] Shaped like the hull of a ship. *Rare.*
Nau′ti·la′ce·a (-lā′shē·ȧ), *n. pl.* [NL.] *Zool.* The Nautiloidea. — **nau′ti·la′cean** (-shăn), *adj. & n.*
nau·til′i·cone (nô·tĭl′ĭ·kōn), *n.* *Paleon.* Any nautiloid cephalopod shell coiled in a spiral as in the genus *Nautilus*.
nau·til′i·form (-fôrm), *adj.* [*nautilus* + *-form*.] *Zool.* Having the form of a nautilus shell.
nau′ti·lite (nô′tĭ·līt), *n.* *Paleontal.* A fossil nautilus.
Nau′ti·loi′de·a (nô′tĭ·loi′dē·ȧ), *n. pl.* [NL. See NAUTILUS; -OID.] *Paleontal. & Zool.* An order (or suborder) of tetrabranchiate cephalopods having an external chambered shell, either straight (as in *Orthoceras*) or variously curved or coiled. The group was important in the Ordovician and esp. the Silurian, but only the genus *Nautilus* now survives. — **nau′ti·loid** (nô′tĭ·loid), **nau′ti·loi′de·an** (-loi′dē·ăn), *adj. & n.*
nau′ti·lus (nô′tĭ·lŭs), *n.*; *pl.* -LUSES (-ĕz; -ĭz; 119), NAUTILI (-tĭ·lī). [L., fr. Gr. *nautilos* a seaman, sailor, a kind of shellfish which was supposed to be furnished with a membrane which served as a sail, fr. *naus* ship. See NAVE of a church.] **1. a** Any cephalopod mollusk of the genus *Nautilus*, the only surviving genus of the Tetrabranchia. Three or four species exist, living in the South Pacific and Indian oceans. They have a spiral, chambered shell formed of two layers, the outer being porcelaneous, the inner pearly, whence the name ***pearly nautilus***, applied to distinguish them from the ***paper nautilus*** (see ARGONAUTA). The animal, which is contained in the outer chamber, has numerous small tentacles arranged in groups, without suckers or hooks, no ink sac, four gills, four auricles, four nephridia, and the siphon consisting of two lobes, not fused to form a tube. See TETRABRANCHIA. **b** [*cap.*] *Zool.* The genus containing these species, and fossil forms, some dating back to the Tertiary.



Pearly Nautilus. *a* Section of Animal and Shell; *b* Shell, side view.

2. The paper nautilus. See ARGONAUTA.
3. A variety of diving bell.
Nav′a·ho, Nav′a·jo (năv′ȧ·hō), *n.*; *pl.* -HOS, -JOS (-hōz), or -HOES, -JOES (-hōz). [Sp. Apaches de *Navajó*, fr. Tewa *Navahu*, lit., great fields, a Tewa pueblo near which the Spaniards first encountered the Navahos.] **1.** One of an important tribe of Athapascan Indians mostly living, as seminomadic herdsmen, on a reservation in Arizona, New Mexico, and Utah.
2. A color, reddish red-yellow in hue, of very high saturation and medium brilliance. Cf. COLOR.
Navaho blanket. A woolen blanket, of bright colors in geometric design, made by Navaho women.
Nav′a·ho sand′stone (năv′ȧ·hō). *Geol.* A massive, cliff-making, red sandstone constituting the uppermost division of the Jurassic strata of northwestern New Mexico and northeastern Arizona.
na′val (nā′văl), *adj.* [L. *navalis*, fr. *navis* ship. See NAVE of a church.] **1.** Of or pert. to ships or shipping. *Obs.*
2. Of, pertaining to, connected with, possessing, or characteristic of, vessels of war or a navy; as, *naval* forces.
Syn. — NAVAL, NAUTICAL. NAVAL designates that which pertains to a navy, or (now rarely) to ships and shipping in general; NAUTICAL applies to seamen, to the art of navigation, or to kinds of ships, their parts, etc.; as, a *naval* engagement, the *Naval* Academy, *naval* stores; a *nautical* almanac, *nautical* tables, *nautical* slang. Cf. MARINE.
naval architect. One who practices the art of designing ships, esp. vessels of war. — **naval architecture.**
naval attaché. A naval officer detailed on duty with the diplomatic representative of his country at a foreign capital. Cf. MILITARY ATTACHÉ. See PRECEDENCE.
naval auxiliary. In the United States Navy, a vessel auxiliary to the fighting vessels, as a tanker, supply vessel, etc. See NAVY, 2 c.
naval aviator. *U. S. Navy.* A commissioned officer who has completed the requisite course of training as a pilot of heavier-than-air craft, and whose certificate as *naval aviator* has been issued.
naval base. A port with facilities for maintaining vessels of the fleet in operating readiness.
naval brass. Brass composed usually of copper 62 parts, zinc 37, tin 1, used for bolts, etc., to be normally under water.
naval brigade. See NAVAL MILITIA.
naval cadet. A young man in training for service as a naval officer. In the United States, from 1882 to 1902, the name was given to a midshipman (which see).
naval constructor. *U. S. Navy.* A member of a corps of officers having in charge the designing, construction, and repairing of the hulls of war vessels and their fittings, exclusive of propulsive machinery, and the installation of all armor and ordnance. The corps is composed generally of honor graduates of the Naval Academy.
naval crown. A golden crown consisting of galley prows arranged in a circle to form the rim, invented by the Roman Emperor Claudius as a reward for sea service. Hence, *Her.*, a charge depicting a crown of gold with ship sterns and square sails arranged alternately on the fillet.
naval engineering. See ENGINEERING, *n.*, 1. — **naval engineer.**
na′val·ism (nā′văl·ĭz'm), *n.* Policy of maintaining naval interests; also, dominance of the naval class or of naval policies. — **na′val·ist** (-ĭst), *n. & adj.* — **na′val·is′tic** (-ĭs′tĭk), *adj.* — **na′val·is′ti·cal·ly** (-tĭ·kăl·ĭ), *adv.*
naval militia. A naval force maintained by some of the States in about the same manner as the National Guard; — formerly called *naval brigade*.
naval officer. **a** An officer in a navy. **b** *U. S.* An official of the Treasury Department attached to the customhouses at the larger ports to handle manifests and entries, permits, clearances, and other documents. He is now officially called *comptroller of the customs*.
naval pipe. *Naut.* = CHAIN PIPE **a**.
naval reserve. An organization of organized and trained bodies of volunteers, and, sometimes, mercantile vessels, which can be called upon to strengthen the regular navy in war. In Great Britain vessels commanded by officers of the Royal Naval Reserve fly the blue ensign (see ENSIGN, 1).
naval station. A place where vessels of a navy can obtain coal, supplies and, usually, minor repairs.
naval stores. **a** Supplies for vessels, esp. war vessels. **b** *Com.* Tar, pitch, turpentine, and other resinous products.
Na·va·ra′tra (nŭv′ȧ·rä′trȧ), *n.* [Skr. *navarātra* period of nine days (prop., nights).] *Hinduism.* A nine-day festival in honor of Durga, held in the month Ashvin (Sept.–Oct.).
na′varch (nā′värk), *n.* [L. *navarchus*, fr. Gr. *nauarchos*, fr. *naus* ship + *archos* chief.] *Gr. Antiq.* The commander of a fleet.
na′varch·y (-vär·kĭ), *n.* [Gr. *nauarchia*.] *Gr. Antiq.* The office of a navarch.
‖**na′va′rin′** (nȧ′vȧ′răN′), *n.* [F.] A mutton stew prepared with turnips, potatoes, and beans.
Na′var·rese′ (nä′vär·rēz′; -rēs′; năv′ȧ-), *adj.* Of or pert. to Navarre. See *Gaz.* — *n. sing. & pl.* A native or inhabitant of Navarre.
Na·var′ri·an (nȧ·vär′ĭ·ăn), n. Of or pert. to Navarre.
nave (nāv), *n.* [AS. *nafu*; akin to D. *naaf*, G. *nabe*, OHG. *naba*, ON. *nöf*, Skr. *nābhi* nave, navel, L. *umbo* boss of a shield, Av. *nāfa* navel, Lett. *naba*. See NAVEL.] **1.** The block in the center of a wheel, from which the spokes radiate, and in which the axle is fixed; the hub.
2. The navel. *Rare.* "From the *nave* to the chaps." *Shak.*
nave (nāv), *n.* [L. *navis* ship, to which the church was often likened; akin to Gr. *naus*, Skr. nom. *naus*, acc. *nāvam*, OIr. *nau*, ON. *nōr*. Cf. NAUSEA, NAUTICAL, NAVAL, NAVIGATE, NAVY, NEF, NOISE.] **a** In the dromic or basilican churches, and their successors the cruciform churches, the long narrow hall which ordinarily rises higher than the aisles flanking it, and which usually has windows on each side above the aisle roof (see CLERESTORY). See *Illusts.* under ARCHITECTURE and CATHEDRAL. **b** Hence, any higher division rising above lower roofs of the same building, as in a warehouse. **c** That part of a church which anciently was first entered from the atrium or from the narthex, and was usually, therefore, the western great division of the church. In cruciform churches, the part between the crossing and the western, or greater, porch.
nave (nāv). Var. of NIEVE, fist.
Na′ve (nā′vē). *Bib.*
na′vel (nā′vĕl), *n.* [AS. *nafela*; akin to D. *navel*, G. *nabel*, OHG. *nabalo*, ON. *nafli*, OIr. *imbliu*, L. *umbilicus*, Gr. *omphalos*, Skr. *nābhīla*, and to E. NAVE hub. Cf. NOMBRIL, OMPHALIC, UMBILICAL.] **1.** A mark or depression in the middle of the abdomen, marking the point of attachment of the umbilical cord; the umbilicus.
2. The central part or point of anything; the middle.
Within the *navel* of this hideous wood. *Milton.*
3. Hence: *Obs.* **a** The middle of a horse's back. **b** The nave of a wheel.
4. *Her.* See ESCUTCHEON, 1.

na′tu·rel (nă′tū·rĕl), *adj.* Natural. *Obs.* — **na′tu·rel·ly**, *adv.* *Obs.*
na′ture·less, *adj.* Without vital nature, also, unnatural. *Obs.*
na′ture-like′, *adj.* See -LIKE.
nau′frage (nô′frĭj), *n.* [F., fr. L. *naufragium*.] Shipwreck. *Obs.*
nau′fraged (-frĭjd), *adj.* Shipwrecked. *Obs.*
nau′tra·gle, *n.* Naufrage. *Obs.*
naught, nauht. † NIGHT.
naught′ly, *adv.* Naughtily. *Obs.*
naughts′-and-cross′es. Var. of NOUGHTS-AND-CROSSES.
nau′krar, nau′kra·ry. Vars. of NAUCRAR, NAUCRARY.
nau′lum, *n.* [L., fr. Gr. *naulon*, fr. *naus* ship.] Ferry money, fare. *Obs.*
Na′um (nā′ŭm). *Bib.*
nau′se·a·proof′, *adj.* See -PROOF.
nau′se·a′ting·ly, *adv.* of *nauseating*, pres. part.
nau′se·a′tive (nô′shē·ā′tĭv; nô′sē-), *adj.* Inclined to nausea. *Obs.*
nau′si·ty (nô′sĭ·tĭ), *n.* Nausea. *Obs.*
na′val·ese′, *n. & adj.* See -ESE c.
na′val·ly, *adv.* of NAVAL.

fard (färd), **faird** (fârd), *n.* [Cf. ME. *ferd* army, AS. *fyrd*, *fierd*, army, expedition, E. *fare*, v.] Motion; impetus; onset. *Obs. Scot.*

far′del (fär′dĕl; -d'l), *n.* [OF. (F. *fardeau*), fr. *farde* a pack, bundle, fr. Ar. *fardah*. See FARDE, FARDH.] *Archaic & Dial.* **1.** A bundle or pack; hence, a burden. *Shak.*
A *fardel* of never-ending misery and suspense. *Marryat.*
2. A miscellaneous collection or lot.
3. A wrapper; that in which anything is wrapped. *Obs.*
4. Clothing; as, women's *fardels.*

far′del, *v. t.* **1.** To make up into a fardel, or bundle.
2. *Naut.* To furl. *Obs.*

far′del, *n.* [AS. *fēortha* fourth + *dǣl* part.] A fourth part; — in old measures; *pl.*, quarters; fragments. *Obs. exc. Dial.*

far′del-bound′, *adj.* [See FARDEL a burden.] *Veter.* Having a disease marked by costiveness; — said of cattle.

fardh (färd), *n.* [Corrupt. of Ar. *firdh* the fruit, esp., of the Theban palm, fr. *faradh* to separate; — the dates are not clustered.] *Hort.* A commercial variety of shiny dark-brown date, grown in eastern Arabia and in California.

far′–down′, far′–down′er, *n.* A native of the north of Ireland. *Colloq., Ir. & U.S.*

fare (fâr), *v. i.*; FARED (fârd); FAR′ING (fâr′ĭng). [AS. *faran* to travel, fare; akin to OS., Goth., & OHG. *faran* to travel, go, D. *varen*, G. *fahren*, OFris. & ON. *fara*, Gr. *poros* a way through, *porthmos* a ferry, strait, *poreuein* to convey, *poreuesthai* to go, march, *peran* beyond, on the other side, *peran* to pass through, L. *portus* port, Skr. *piparti* he brings over. Cf. CHAFFER, EMPORIUM, FAR, FERRY, FIRK,

The Historical Order In Definition

Most words have only one meaning and one definition.

Whenever a word has more than one meaning, the definitions are arranged in their historical order of development.

The historical arrangement accomplishes two ends. First, it shows the fascinating development of the meanings, from the earliest to the latest.

Naughty, upon the opposite page, meant originally "having naught, destitute" (just as *wealthy* means "having wealth"). In Shakespeare's time *naughty* meant "wicked," but since then the word has become less dignified and sinister, until now we hardly apply it to anything except the peccadillos of children.

Farm is a very ancient word that goes back through the Middle Ages to the Latin. It once meant the money paid for a tax or rent; then a fixed sum paid instead of taxes; thirdly, the renting out of land at a fixed sum; then a lease, or the land leased or rented; next, a piece of land held under a lease and used for agricultural purposes; and finally, land used for agricultural purposes, whether rented or owned by the man who worked it.

Second, the historical order is the clearest and plainest order. It is practically always the logical order, because it follows the senses as they develop one from another; and it therefore furnishes the only distinctly marked pathway for the reader who is hunting for one particular sense among the diverse definitions of a word of many meanings.

— far′fetched′ness (fär′fĕcht′nĕs; -nĭs; 119), *n.*

far′–flung′ (66), *adj.* Flung out to a distance; hence, having wide range; covering a large area; as, *far-flung* mists, branches, plains, inquiries, imagination; a *far-flung* empire.

far′–forth′, *adv.*, *or* **far forth.** Far; to a great or definite distance, degree, or extent. *Archaic.* — **far′–forth′ly,** *adv. Obs.*

Far From the Madding Crowd. A novel (1874) by Thomas Hardy, of pastoral life in "Wessex."

far′go′ing (fär′gō′ĭng; 66), *adj.* Going or reaching far; having extended influence; far-reaching.

far′–gone′ (fär′gŏn′; 66; 185), *adj.* Greatly advanced; as, a *far-gone* lover, one hopelessly given over to his passion; a wounded man *far-gone*, one nearly dead.

far′good (fär′gŏŏd), *n.* A spar bowline to the foresail of a fishing boat. *Cornwall.*

fa·ri′na (fȧ·rē′nȧ *or*, *esp. Brit.*, fȧ·rī′nȧ; 277), *n.* [L., meal, flour, fr. *far* a sort of grain, spelt. See 2d BARLEY; cf. CONFARREATION, FARRAGO.] **1.** A fine meal made from cereal grains, nuts, or sea moss, and used for puddings and breakfast cereal.
2. The purified middlings of hard wheat other than durum.
3. Starch; specif., potato starch.
4. A powdery or flourlike substance; specif.: **a** *Bot. Obs.* Pollen. **b** *Zool.* A fine mealy powder found on some insects.

far′i·na′ceous (făr′ĭ·nā′shŭs), *adj.* [LL. *farinaceus.*] **1.** Consisting or made of meal or flour; as, a *farinaceous* diet; yielding farina or flour; as, *farinaceous* seeds.
2. Like meal; mealy; as, a *farinaceous* taste, smell.
3. Covered with farina or some fine dust resembling it. *Obs.*
— far′i·na′ceous·ly, *adv.*

farinaceous ipecacuanha. The emetic root of the Mexican clover (*Richardsonia scabra*).

far′i·nom′e·ter (făr′ĭ·nŏm′ē·tẽr), *n.* [*farina* + *-meter.*] An instrument for the valuation of flours, as by measuring the viscosity of the dough.

far′i·nose (făr′ĭ·nōs), *adj.* [LL. *farinosus.*] **1.** Yielding farina; as, *farinose* substances; also, like farina.
2. *Bot. & Zool.* Covered with a whitish mealy powder, as the leaves of *Primula farinosa*, etc., and the bodies of certain insects; mealy.
— far′i·nose·ly, *adv.*

fa·rin′u·lent (fȧ·rĭn′ū·lĕnt), *adj.* [L. *farinulentus* mealy. See FARINA.] Minutely farinose.

-far′i·ous (-fâr′ĭ·ŭs). A combining form, Latin *-farius*, meaning *-fold*, in words from Latin, as in bi*farious*, omni*farious*. Cf. -PLOID.

Far′ish (fâr′ĭsh; fā′rĭsh), *adj.* Of or pertaining to the Faroe Islands or their inhabitants.

far′ish (fär′ĭsh), *adj.* Somewhat far.

far′kle·ber′ry (fär′k'l·bĕr′ĭ), *n.*; *pl.* -RIES (-ĭz). [Origin uncert.] A shrub or small tree (*Batodendron arboreum*), family Vacciniaceae, of the southeastern United States.

farl, farle (färl), *n.* [From older *fardel*, fr. AS. *fēortha dǣl* fourth part.] Orig., the fourth part of a thin cake, esp. of oatmeal; now, a small scone. *Chiefly Scot. & Irish.*

far′leu (fär′lū), **far′ley** (-lĭ), *n.* *Feudal Law.* Money or chattels given by a tenant to his lord in lieu of a heriot.

Far′ley maid′en·hair′ (fär′lĭ). *Hort.* A widely cultivated variety (*Adiantum tenerum farleyense*) of the brittle maidenhair. See FERN, *Table.*

farm (färm), *n.* [ME. *ferme* rent, lease, fr. OF. *ferme* a lease, leased farm, fr. *fermer* to make a contract, to fix, fr. L. *firmare*, fr. *firmus* firm. See FIRM.] **1.** A sum or due fixed in amount and payable at fixed intervals by way of rent, tax, or the like. *Obs.*
2. A fixed sum payable at fixed intervals, as yearly, by a person in lieu of taxes or other dues which he has authority to collect; also, a sum assessed upon a municipality or place as the amount to be paid from taxes to be collected within its limits. Hence, a letting out of revenues or taxes for a fixed sum to one authorized to collect and retain them; also, collectively, the farmers of public revenues.
3. The condition of being let, or farmed, out at a fixed rent.
The earl of Wiltshire hath the realm in *farm.* *Shak.*
4. A lease. *Obs.* *Spenser.*
5. A district or division of a country leased (or farmed) out for the collection of the revenues of government.
The province was divided into twelve *farms.* *Burke.*
6. Orig., a piece of land held under lease for cultivation; hence, any tract of land (whether consisting of one or more parcels) devoted to agricultural purposes, generally under the management of a tenant or the owner; any parcel or group of parcels of land cultivated as a unit.
7. Hence, a plot or tract of land devoted to the raising of domestic or other animals; as, a chicken *farm*; a fox *farm*. By extension, a tract of water reserved for the artificial cultivation of some aquatic food; as, an oyster *farm.*
8. A farmhouse.
9. A baby farm. *Cant.*
10. In the game of farmer, the pool, which is sold to the highest bidder before the cards are dealt.

farm, *adj.* Of or pertaining to a farm; used on a farm or for farming purposes; also, of or pertaining to farmers.
☞ For many expressions beginning with *farm*, see the word or phrase with which *farm* is used.

farm, *v.*; FARMED (färmd); FARM′ING. *Transitive*: **1.** To rent. *Obs.*
2. To collect and take the fees or profits of (any occupation or business) on payment of a fixed sum.
3. To give up to another, as an estate, a business, the revenue, etc., on condition of receiving in return a fixed sum.
To *farm* their subjects and their duties toward these. *Burke.*
4. To contract for the maintenance and care of (a person or thing) at a fixed price; as, the town *farms* its paupers.
5. To devote (land) to agriculture; to cultivate, as land; to till, as a farm; to use (land) as a farm.
—, *Intransitive*: To be engaged in the business of tilling the soil; to produce crops and animals on a farm; to manage or conduct a farm; to labor as a farmer.
farm let, let to farm. To lease on rent.
farm out. To turn over (a special job or duty) by contract with others not immediately or publicly responsible for its performance; as, a printer *farms out* composing.

farm (färm), *n.* [AS. *feorm*; cf. ML. *firma* feast, and 1st FARM.] Food; a feast. *Obs.*

farm, *v. t.* [AS. *feormian.*] To cleanse; empty. *Now Dial.*

farm′age (fär′mĭj), *n. Obs.* **1.** The farming of taxes; also, leasehold tenure.
2. Cost of, or profit from, farming.

farm bloc. See BLOC, *n.*, 1.

farm bureau. One of many local associations of farmers, united into a national federation to improve conditions of farming and to encourage co-operation. *U. S.*

Farm Credits Act. = AGRICULTURAL CREDITS ACT.

farm elevator. An elevator receiving grain from farms.

farm′–en′gro (färm′ĕng′grō), *n.*; *pl.* -ENGORO (-gô·rō). [See -ENGRO.] Farmhand. *Gypsy.*

farm′er (fär′mẽr), *n.* [ME. *fermour*, fr. OF. *fermier*, fr. *ferme.* See FARM, *n.*] **1.** One who farms; as: **a** One who takes taxes, customs, excise, or other duties, to collect, paying a fixed sum for the privilege; as, a *farmer* of the revenues. **b** One who leases a government monopoly. **c** *Obs.* A lessee. **d** A cultivator of ground as a steward or tenant. **e** One who conducts or manages a farm. **f** One who agrees to perform certain duties for a fixed sum; specif., one who agrees to care for, or to keep, babies or paupers.
2. A clumsy stupid fellow; a dolt. *Slang.*
3. One whose work is to farm a (specified) thing, as in:

cattle farmer	fruit farmer	sheep farmer
dairy farmer	oyster farmer	wheat farmer

4. *Gambling.* A variation of vingt et un in which the object of the players is to draw cards totaling exactly sixteen in pip value; also, the owner of the farm, or pool, in this game.
5. *Mining.* One who leases the lot and cope of the crown.

farmer drill. A straight-fluted drill.

farm′er·ess (fär′mẽr·ĕs; -ĭs; 119), *n.* **a** A woman who farms. **b** A farmer's wife.

farm′er·ette′ (fär′mẽr·ĕt′), *n.* [See -ETTE.] A woman or girl who farms or works on a farm; a farmeress. *Colloq.*

farm′er–gen′er·al (fär′mẽr·jĕn′ẽr·ăl), *n.*; *pl.* FARMERS-GENERAL. [F. *fermier général.*] *French Hist.* One of the men who farmed certain taxes from 1697 to the time of the Constituent Assembly. — **farm′er–gen′er·al·ship′,** *n.*

Farmer George. King George III of England; — from his favorite pursuit.

Farm′er–La′bor·ite, *n.* A member of Farmer-Labor party.

Farm′er–La′bor par′ty. *U. S. Politics.* A minor radical party formed in 1920 by the Committee of Forty-Eight, the Nonpartisan League, and other groups. Its platform demanded the election of Federal judges, the nationalization of railroads, mines, and banks, and Federal loans to farmers at a low rate of interest. In 1924 it broke up into factions.

farm′er·ly (fär′mẽr·lĭ), *adv.* Like a farmer. *Obs.*

Farm′ers′ Al·li′ance (fär′mẽrz). *U. S. Politics.* An organization of farmers, originated about 1876 and nationally important about 1890, esp. in the South and West. It merged with the People's party in 1892, but has continued as an association to promote the welfare of the farmer.

farmers' mutual. See MUTUAL.

farm′er's–plague′, *n.* The goutweed.

farmer's ruin. The corn spurry.

farmers' satin. = ITALIAN CLOTH.

farm′er·y (fär′mẽr·ĭ), *n.*; *pl.* -ERIES (-ĭz). The buildings and yards of a farm; a homestead; also, farming. *Eng.*

farm′er·y (fär′mẽr·ĭ), *adj.* Farmerlike.

far′mer·y (fär′mẽr·ĭ). Var. of FERMERY. *Obs. exc. Hist.*

farm hand. A farm laborer, esp. a hired laborer.

farm′hold′ (färm′hōld′), *n.* A tract or holding of land cultivated as a farm.

farm′house′ (-hous′ *or*, *esp. Brit.*, färm′hous′), *n.* The principal dwelling house of a farm. — **farm′house′y** (-houz′ĭ; -hous′ĭ), *adj.*

farm′ing, *adj.* Pertaining to agriculture; devoted to, adapted to, or engaged in, farming.

farm′ing, *n.* **1.** Act or custom of letting out to farm.
2. Act or business of cultivating land; the conduct or management of a farm.

farm level. A telescope level of the dumpy type used in farm surveying and similar work.

Farm Loan Bank. A Federal Land Bank; — loosely but incorrectly so called. *U. S.*

farm loan bond. A tax-free bond issued by a Federal Land Bank and secured by a first mortgage on farm land.

farm management. The phase of agricultural economics dealing with the management of a farm.

far′most (fär′mōst; -mŭst), *adj.* Farthest. *Rare.*

farm′place′ (färm′plās′), *n.* A farm.
It was a quiet *farmplace*, standing among fields. *Maristan Chapman.*

farm′stead (färm′stĕd), *n.* Also **farm′stead′ing.** A farm.

farm′town′ (-toun′), *n.* Farm buildings collectively. *Scot.*

farm′y (fär′mĭ), *adj.* Abounding in farms.

farm′yard′ (färm′yärd′ *or*, *esp. Brit.*, färm′yärd′), *n.* The yard or enclosure attached to a barn, or the space enclosed by the farm buildings. — **farm′yard′y** (-yär′dĭ), *adj.*

Far·ne′se Bull (fär·nā′sā). A colossal group of ancient statuary, for some time prior to 1786 in the Farnese palace, but now in the National Museum, Naples. It represents the sons of Antiope about to bind Dirce (which see) to the bull. It is attributed to the sculptors Apollonius and Tauriscus of Tralles (prob. 1st century B.C.). It was found in 1546 in the Baths of Caracalla at Rome, and was restored under Michelangelo.

Farnese Hercules. A statue of Hercules, once in the Farnese palace, but now in the National Museum at Naples. It was the work of Glycon of Athens (prob. 1st century B.C.).

Farnese Hercules.

far′ne·sol (fär′nē·sōl; -sŏl), *n.* [A. *farnesiana*, a species of Acacia + *-ol.*] *Chem.* A liquid alcohol, $C_{15}H_{26}O$, of the aliphatic series, occurring in the volatile oils of many flowers, in amber seed, etc. A dilute alcoholic solution gives on evaporation a persistent lily-of-the-valley odor.

far′ness (fär′nĕs; -nĭs; 119), *n.* [From FAR, *adj.*] **1.** State or quality of being far off; distance; as, an illusion of *farness.*
2. Distant parts; the distance; as, from the *farness.* *Poetic.*

Far·no′vi·an (fär·nō′vĭ·ăn), *adj.* Of or pertaining to Farnovius, a Polish anti-Trinitarian leader of the 16th century. — *n.* A follower of Farnovius.

far′o (fâr′ō), *n.* [Said to be so called because the Egyptian Pharaoh was formerly represented upon one of the cards.] A banking game played with a layout (cf. LAYOUT, *n.*) and a full pack of 52 cards. The cards are placed face up in a dealing box, the players placing their bets to win or lose, in any of 21 different ways, on the layout. The cards are drawn from the box two at a time, the first card drawn on each turn being laid aside as belonging to the previous turn, while the second card drawn, and placed beside the box, is the loser, and the card left face up in the box is the winner, on any given turn. Cf. COPPER, *v. t.*; IN HOC; SODA; SPLIT, *n.*

faro bank. The capital which the proprietor of a faro table ventures in the game; also, an establishment where a game of faro is played. — **faro banker.**

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far′de (fär′dĕ), *n.* [Ar. *fardah* bag, bale, half a beast's load. See FARDH.] See MEASURE, *Table.*
far′del·et, *n.* [OF.] Dim. of FARDEL, bundle.
far′der, far′dest. † FARTHER, FARTHEST.
far′din·gale. † FARTHINGALE.
far′do (făr′dō), *n.* [Cf. Sp. *fardo* bundle.] See WEIGHT, *Table.*
fare. Var. of FAIR, FAR, FEAR. *Obs. exc. Dial.*
far′e·cel′la (făr′ĕ·sĕl′ȧ). Var. of FARSALAH. See WEIGHT, *Table.*
fare′–free′, *adj.* See -FREE.
fare′wel′. Farewell. *Ref. Sp.*
far′–flown′ (66), *adj.* See FLOWN.
Far·fu′gi·um (fär·fū′jĭ·ŭm), *n.* [NL.] Syn. of LIGULARIA.
far′ing. Var. of FAIRING.
far′ing, *pres. part. & verbal n.* of FARE. Also, *Dial.*, = FARE, *n.*, 5.
far′i·nous, *adj.* Farinose. *Obs.*
far′inx. Pharynx. *Ref. Sp.*
Far′i·see. Pharisee. *Ref. Sp.*
farl (färl), *v. t.* [From FARDEL, *v.*] To furl. *Obs.*
far′ley, far′ly (făr′lĭ). Dial. vars. of FERLY.
far′ly, *adv.* Far. *Obs.*
farm′a·ble, *adj.* See -ABLE.
far′ma·ceu′tic. Pharmaceutic. *Ref. Sp.*
far′ma·col′o·gy. Pharmacology. *Ref. Sp.*
far′ma·co·pe′ia. Pharmacopoeia. *Ref. Sp.*
far′ma·cy. Pharmacy. *Ref. Sp.*
farm′–bred′, *adj.* See BRED.
farmd. Farmed. *Ref. Sp.*
farm′er·like′, *adj.* See -LIKE.
farm′er·ship, *n.* See -SHIP.
farm manager. See MANAGER.
farn′ti·cle. Dial. var. of FERNTICKLE.

G H I J K L M

banana bean. The velvet bean.
banana bird. **a** Any of several tropical American orioles, as *Icterus leucopteryx*, which feed on the banana. **b** A banana quit.
banana boa. Any snake of the family Boidae frequenting bananas, as *Constrictor constrictor imperator* and any member of the genus *Boa*.
banana eater. The plantain eater.
banana family. The Musaceae.
banana fish. The ladyfish *Albula vulpes*.
banana flour. A flour made by pulverizing dried unripe bananas; — called also **banana meal.**
banana fly. The fruit fly *Drosophila melanogaster*.
banana freckle. *Plant Pathol.* A disease of the fruit and leaves of the banana caused by the imperfect fungus *Phoma musae*, producing brown or black spots.
Ba·nan'a·land' (bȧ·năn'ȧ·lănd'; bȧ·nä'nȧ-), *n.* Queensland; — from the abundance of bananas produced and exported. *Colloq., Australia.* — **Ba·nan'a·land'er,** *n.*
banana liquid. Banana solution.
banana moth. A small East Indian moth (*Nacoleia octasema*) of the family Pyralididae, whose larvae live in the bunches of bananas and cause in them a scabby condition; — called also *pisang moth.*
banana oil. **a** Amyl acetate; — from its bananalike odor. **b** A lacquer containing amyl acetate.
banana quit. Any of several small birds of tropical America, of the genus *Coereba*, allied to the creepers.
banana root borer. A stout, orange or reddish, black-marked snout beetle (*Cosmopolites sordidus*), family Curculionidae, whose larvae bore in banana plant roots.
banana shrub. A Chinese evergreen shrub (*Michelia fuscata*); — from the banana fragrance of its flowers.
banana solution. Any of certain solutions containing amyl acetate (which gives them a banana odor).
banana water lily. A yellow-flowered aquatic plant (*Nymphaea mexicana*) found from Florida to Mexico.
banana weevil. The banana root borer.
banana wilt. Panama disease.
ba·nan'ist (bȧ·năn'ĭst; -nä'nĭst), *n.* A bananivorous bird.
ban'a·niv'o·rous (băn'ȧ·nĭv'ō·rŭs), *adj.* [See -VOROUS.] Eating bananas.
ban'at, ban'ate (băn'ăt), *n.* [Cf. F. & G. *banat.* See BAN a warden.] The territory governed by a ban; specif., a province or district in Yugoslavia.
ban'at·ite (băn'ăt·īt), *n.* *Petrog.* **a** Any of a group of rocks, chiefly quartz-diorites, from the Banat (a district partly in Yugoslavia and partly in Rumania; see *Gaz.*). **b** A quartz-bearing monzonite.
ba·nau'sic (bȧ·nô'sĭk), *adj.* [Gr. *banausikos.*] Smacking of the workshop.
Ban'ba (bȧn'vȧ; -bȧ), *n.* [Ir. *Banba, Banbha*; cf. Ir. & Gael. *banbh* pig.] Ireland; — a poetic name, from a queen of the Tuatha Dé Danann. It is preserved in place names, as in *Banff.*
Ban'bur·y (băn'bẽr·ĭ; băm'-), *n.* A town in Oxfordshire, Eng., celebrated in nursery rhyme, and famous, esp. during the English Civil War, for the puritanical zeal of its inhabitants, and now for a kind of pastry with a rich mince filling.
banc (băngk), **ban'cus** (băng'kŭs), *n.* [OF. *banc*, ML. *bancus.* See 3d BANK.] Bench (on which judges of a court sit). — ***in banc, in ban'co*** (băng'kō). [*banco*, abl. of *bancus.*] In full court, or with full judicial authority; as, sittings *in banc* (distinguished from sittings at *nisi prius*).
ban'ca (bäng'kä), *n.* [Sp., fr. Tag. *bangca.*] A kind of boat or dugout canoe, often with outriggers and a roof of bamboo. *Phil. I.*
‖**ban'ca ca'va** (bäng'kä kä'vä). [It.] A hollow seat used in the inquisition as an instrument of torture.
ban·cal' (bäng·käl'), *n.* [Visayan *bañkal.* Cf. BANKUL NUT.] A Philippine timber tree (*Sarcocephalus orientalis*), valued for its hard, strong wood.
‖**ban'cal'** (bäN'kȧl'; *E.* băng'kăl), *n.* [F., lit., bow-legged.] A curved saber.
‖**ban·cal'** (bäng·käl'), *n.; pl.* -CALES (*Sp.* -kä'lās). [Sp., fr. *banca, banco*, bench. See BENCH.] An ornamental covering for a bench.
ban'co (băng'kō; *It.* bäng'kō), *n.; pl.* BANCOS (băng'kōz), *It.* BANCHI (bäng'kē). [It. See BANK.] **1.** A bank, esp. in Italy. The term is used also in parts of Europe to indicate standard bank money or values, as distinguished from depreciated money or values of a state.
2. *Baccarat.* A punter's challenge to the banker to stake his entire capital on the result of a single coup. Hence ***to go banco***, to challenge with banco.
ban'co (băng'kō), *n.; pl.* BANCOS (-kōz). [Sp.] *Phys. Geog.* A portion of the flood plain or channel of a river cut off by the shifting of the course of the river.
ban'co (băng'kō), *n.* Short for *in banco.* See under BANC.
band (bănd), *n.* [ME. *band, bond*, fr. ON. *band*; akin to G., Sw., & D. *band*, OHG. *bant*, Goth. *bandi*, Skr. *bandha* a binding, also to E. *bend, bind.* In senses under II it is fr. F. *bande*, older *bende*, of G. origin; cf. OHG. *binda* band, filet (see BIND). Senses under III are fr. F. *bande* (cf. It. *banda*), also of G. origin (cf. BANNER). See BIND, *v.*; cf. 3d BEND, BOND.]
I. As that which serves to bind:
1. **a** *Archaic.* Anything used to make fast or confine the body or limbs, as a letter, manacle, shackle, or the like.
Everyone's *bands* were loosed. *Acts* xvi. 26.
b Hence, figuratively, something that fetters.
2. A cord, string, or ligament with which anything loose, or with which a number of things or parts, may be tied, bound together, held in place, or confined. Specif.: **a** A string or tie, as of hay, straw, rushes, etc., used to bind stalks into a sheaf or bundle. **b** A hinge of a gate or door, esp. a strap hinge. **c** A came, in a glass window.
3. That which restrains by immaterial means, as a moral, spiritual, or legal force. Specif.: **a** A restraining obligation or tie affecting one's relations to another; — now used chiefly in "the *bands* of matrimony." "To join in Hymen's *bands*." *Shak.* **b** *Archaic.* A formal promise, pledge, or guarantee; a bond. "Thy oath and *band*." *Shak.* **c** *Obs.* A pledge given; a security or surety.
4. *Obs.* **a** Binding quality; also, state of being bound; imprisonment or confinement. **b** A tether; a leading string. **c** A hyphen.
5. That which connects or unites by an immaterial force or influence; a tie. "Religion being the chief *band* of human society." *Bacon.*
II. As a strip, often serving to bind:
6. A thin flat strip of any material, esp. a flat strip or fillet used to bind around an object. Specif.: **a** A metallic hoop or sleeve, as that used to hold together the barrel and stock of a gun. **b** A ring or endless strip of elastic rubber, for holding objects together. **c** One of the pieces of iron used to keep in place the bows of a saddle.
7. A narrow strip of cloth or other material on any article of dress, to bind, strengthen, ornament, or complete it; esp., one confining some part or separate article of dress, as a hat, or a waist at the neck or sleeves. Specif.: **a** The neckband or collar of a shirt, whether merely a confining strip, or expanded ornamentally; esp., a collar which after about 1550 became very wide, stood out horizontally or curved upward and out, but which from about 1625 was turned down over the shoulders. This latter form is known as a ***falling band.*** It was worn small and very plain by the Puritans. **b** Now only in *pl.* A pair of strips hanging at the front of the neck as part of a clerical, legal, or academic dress. These bands were originally part of a falling band. In clerical dress they are of fine white lawn and are sometimes called ***Geneva bands.***

Clergyman wearing Bands (7 b).

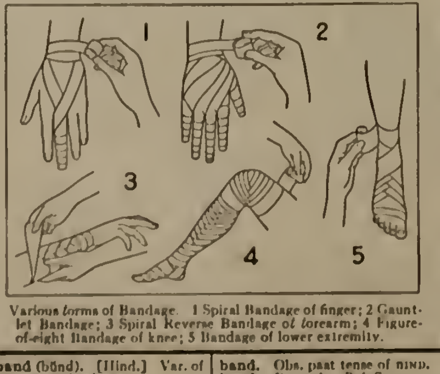
8. Anything having the shape or appearance of a flat strip, esp. an elongated flat surface or section with parallel sides separated by some characteristic, as color or texture, or considered apart, from what is adjacent. Specif.: **a** *pl.* Alternating loose and tight stripes caused in a fabric, as flannel or serge, by the uneven shrinkage of a faulty weft. **b** In England, a ridge (of a small hill); a ridgelike slope or elevation. **c** A strip of cloth for swathing the body; a bandage. **d** An undergarment worn by infants.
III. As a group of associated persons or things:
9. A company of persons (also, sometimes, of animals or of birds, esp. jays) united as for a common purpose; a troop. Specif.: **a** A body of armed men, as of troops or robbers. "Troops of horsemen with *bands* of foot." *Shak.* **b** [*cap.*] In Macedonia, komitajis.
10. **a** A company of musicians who play together upon various wind and percussion instruments (sometimes with a few stringed instruments added). A full ***military band*** consists of clarinets, flutes and piccolos, oboes, bassoons, saxophones, cornets or trumpets, trombones, and various sizes of saxhorns, together with drums, cymbals, and other instruments of percussion. The ***concert band*** often adds cellos, string basses, timpani, harp, and other instruments not suitable for carrying on the march. **b** One of the four groups of instruments in the orchestra; as, the string *band*, the brass-wind *band*. **c** The entire orchestra.
IV. In technical senses:
11. *Arch.* A flat member, usually horizontal (as a continuous tablet, a stripe, or a series of ornaments, as of carved foliage, of color, or of brickwork), dividing or ornamenting a wall or part, as the molding, or suite of moldings, which encircles the pillars and small shafts in Gothic architecture, one of the sections of the banded column used in French Renaissance, etc.

Band, *Arch.*

12. *Bookbinding.* **a** A cord or strip which crosses the back of a book and to which the sections are sewn. **b** One of several transverse ridges raised on the cover by such cords. **c** A false ridge raised for decoration or to protect lettering. **d** One of several flat stamped or tooled band lines in gold or blind to simulate bands. See RAISED BAND; cf. FILLET, HUB.
13. *Bot.* A space between elevated lines or ribs, as of the fruits or plants of the carrot family.
14. *Logic.* The copula. *Obs.*
15. *Mech.* A strap or flat belt.
16. *Mining.* A thin bed or seam of mineral.
17. *Naut.* A strengthening piece of canvas sewed across a sail, as at the eyelet holes for reefing.
18. *Print.* An ornamental strip, as of border type, or of tint between rules.
19. *Radio.* A range of frequencies or of wave lengths; as, radio broadcasting in the *band* from 550 to 1,500 kilocycles.
20. *Zool.* **a** A stripe, streak, or other elongated mark, esp. one transverse to the axis of the body. **b** A line or streak of differentiated cells or tissue; as, a germinal *band.*
☞ COMBINATIONS and PHRASES are:

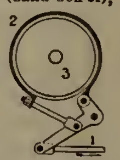
band bracelet	band maker	band-shaped
band iron	band-sawing	band steel

Syn. — See COMPANY.
band (bănd), *v. Transitive*: **1.** To bind or tie with a band; also, to mark with a band, as a bird for identification.
2. To bind or adjust as a band.
3. To encircle (a tree trunk) with a band of cloth, paper, or sticky substance, to protect from injurious insects.
4. To bandage; — often with *up.* *Local, U. S.*
5. To unite in a troop, company, or confederacy. "*Banded* against his throne." *Milton.*
—, *Intransitive*: To confederate for some common purpose; to unite; to conspire together.
Certain of the Jews *banded* together. *Acts* xxiii. 12.
band, *v. t.* To bandy. *Dryden.*
-band. A combining form of BAND, *n.* (esp. in senses 7 & 8), as in collar*band*, hat*band*, etc.
‖**Band** (bänt), *n.; pl.* BÄNDE (bĕn'dĕ). [G.] Volume; section of a book or manuscript.
Ban'da (băn'dȧ), *n.* **1.** One of a group of Negroid peoples on the White Nile.
2. [*not cap.*] In some central African languages, a thatched house.
band'age (băn'dĭj), *n.* [F., fr. *bande.* See 1st BAND.] **1.** A fillet or strip of woven material, used in dressing and binding up wounds, etc.



Various forms of Bandage. 1 Spiral Bandage of finger; 2 Gauntlet Bandage; 3 Spiral Reverse Bandage of forearm; 4 Figure-of-eight Bandage of knee; 5 Bandage of lower extremity.

2. Any flexible strip similarly used; that which is bound over or round something to cover, strengthen, or compress it.
3. A strengthening band or strip, as of stone. *Archaic.*
band'age (băn'dĭj), *v. t.*; BAND'AGED (băn'dĭjd); BAND'AG·ING (băn'dĭj·ĭng). To bind, dress, or cover, with a bandage; as, to *bandage* the eyes. — **band'ag·er** (-dĭj·ẽr), *n.*
band'ag·ist (băn'dĭj·ĭst), *n.* A maker of bandages.
ban'da·ite (băn'dȧ·īt), *n.* [From *Bandai*-san, volcano in Japan + *-ite.*] A siliceous basalt of andesitic texture, often quartz-bearing, and with labradorite as its feldspar.
ban·da'la (băn·dä'lä), *n.* A fabric made in Manila from the older leaf sheaths of the Manila hemp.
ban'da·lore (băn'dȧ·lōr; 181), *n.* A toy, popular about 1790, with an automatically winding cord by which it is brought back to the hand when thrown; — called also *quiz.*
ban·dan'na (băn·dăn'ȧ), **ban·dan'a** (băn·dăn'ȧ *or, esp. Brit.,* -dä'nȧ), *n.* [Hind. *bāndhnū* a mode of dyeing in which the cloth is tied in different places to prevent the parts tied from receiving the dye. See 1st BAND.] **1.** A large silk or cotton handkerchief (originally, one dyed as noted in the etymology above; cf. TIED-AND-DYED) having a uniform ground, usually of red or blue, with white or yellow figures of a circular, lozenge, or other simple form.
2. A style of calico printing in which a pattern of this kind is produced by discharging the color.
ban·dan'naed (-ȧd), *adj.* Covered with a bandanna.
ban'dar (bŭn'dȧr), *n.* [Hind.] The rhesus monkey.
Ban'dar-log' (băn'dẽr-lŏg'; *Hind.* bŭn'dȧr-lōg'), *n.* [Hind. *bandar* monkey + *log* people.] **1.** In Kipling's jungle stories, the monkey race, portrayed as chatterers or poseurs.
2. Hence, **ban'dar-log', ban'der-log',** one who chatters or gossips; one who poses.
band'box' (bănd'bŏks'), *n.* A neat box of pasteboard or thin wood, usually cylindrical, for holding light articles of attire, orig. for the *bands* of the 17th century. Also, attrib., flimsy; unsubstantial; as, a *bandbox* reputation.
band'box'i·cal (-bŏk'sĭ·kăl), **band'box'y** (bănd'bŏk'sĭ), *adj.* Like a bandbox.
band brake. *Mach.* A form of friction brake, used esp. in vehicles, cranes, and hoists, consisting of a flexible band around a revolving circular part and operated by tightening the band. Cf. ROPE BRAKE.



Band Brake. Motion of Rod, 1, in direction of Arrow tightens Band, 2, on Wheel, 3.

band'case' (bănd'kās'), *n.* A bandbox.
band chain. See CHAIN, *n.*, 13 **b.**
band conveyer. See CONVEYER, 2.
band course. A belt course.
band creaser. A tool used in bookbinding to crease lines on either side of bands.
band'cut'ter (bănd'kŭt'ẽr), *n.*, *or* **band cutter. 1.** One who or that which cuts bands.
2. **a** *Agric. Mach.* An attachment for a thresher that cuts the bands of the bound grain, distributes it across the mouth of the separator, and delivers it to the cylinder. **b** One who cuts by hand the bands of bound grain before delivering it to the cylinder.
band driver. *Bookbinding.* A tool used in hand forwarding to correct irregularities in bands on flexible books.
ban'dé' (bäN'dā'), *adj.* [F.] *Her.* Bendy dexter.
ban·deau' (băn·dō'; băn'dō), *n.; pl.* -DEAUX (-dōz'). [F.] **1.** **a** A narrow band or fillet, as for the hair. **b** A narrow strip, usually of buckram, covered with silk or velvet, for placing inside a woman's hat to adjust it to the head.
2. A tight-fitting band worn by women to support the bust.
band'ed (băn'dĕd; -dĭd; 119), *adj.* Having a band or bands; marked with or showing bands or stripes; specif., *Her.*, having a band of another color; — said of a garb.
banded adder. The krait.
banded anteater. See MYRMECOBIUS.
banded architrave, pier, shaft, etc. *Arch.* An architrave, etc., of which the regular profile is interrupted by blocks or projections crossing it at right angles.
banded drum. The common drumfish (*Pogonias cromis*), when immature.
band'ed dui'ker (dī'kẽr). A small forest antelope (*Cephalophus doriae*) of Liberia, with dark cross stripes on a fulvous ground.
banded ironstones. See GRIQUATOWN SERIES.
banded mackerel. = PILOT FISH **a.**
banded mail. Mail armor with alternate bands of rings and ridges like narrow bars encircling the body, arms, etc., represented in 13th-century manuscripts and carved stone.
banded olive snake. A small harmless snake (*Natrix olivaceus*) of tropical and southern Africa.
banded pickerel. See PICKEREL, 2.
banded pier. See BANDED ARCHITRAVE.
banded purple. A handsome butterfly (*Basilarchia arthemis*) of the northeastern United States, with blue-black wings crossed by a broad white band; — called also *white admiral.* See *Butterfly Plate*, facing page 364.
banded rattlesnake. The common rattlesnake (*Crotalus horridus*) of the eastern and central United States.
banded rudder fish. = PILOT FISH **a.**
banded shaft. See BANDED ARCHITRAVE.
banded spectrum. See SPECTRUM.
banded stilt. See STILT, *n.*, 5.
banded structure. *Geol. & Mineral.* A structure characterized by an arrangement of different minerals in layers (which appear as bands in cross section), as in a fissure vein, or of different colors or textures in layers, in a rock consisting of one mineral, as in onyx marble. Cf. EUTAXITIC.
banded sunfish. **a** The black-banded sunfish. **b** The spotted sunfish *Enneacanthus obesus.*
banded veins. *Geol.* Mineral veins which, seen in cross section, present a banded structure.
banded water snake. A race of the common North American water snake (*Natrix sipedon fasciata*), widely distributed in the United States.
band'e·let, band'e·lette (băn'dĕ·lĕt), *n.* [F. *bandelette*, dim. of *bande.* See 1st BAND; cf. BENDLET.] A small band or fillet. Specif.: **a** *Arch.* Any little band or flat molding about a column. **b** A welt on the wrist of a glove.
‖**Bande' Noire'** (bäNd' nwȧr'); *pl.* BANDES NOIRES (bäNd' nwȧr'). [F., Black Band.] **1.** Any of various companies of 16th-century French infantry.
2. The speculators who bought up property confiscated during the French Revolution, and destroyed many works of art to obtain building material.
3. Hence, speculators in merchandise.
band'er (băn'dẽr), *n.* One who or that which bands; as: **a** A workman who affixes bands, as by sewing or painting. **b** One who bands with others. **c** One who secures with bands a (specified) article, as in:

armature bander	headbander	ring bander
envelope bander	postcard bander	spindle bander

Ba·nan'de (bȧ·năn'dā), *n. pl.* = NANDI, *pl.* [See K.
Ba·na'te (bȧ·nä'tā), *n.* = BAN-
ban'cus (băng'kŭs), *n.* See BANC. — **Ban'cus Re'gis** (rē'jĭs). = KING'S BENCH.
‖**band** (bŭnd). [Hind.] Var. of BUND, an embankment.
band. † BOND.
band. *Obs.* past tense of BIND.
band. Banned. *Ref. Sp.*
ban'da·bust (bŭn'dȧ·bŭst). Var. of BUNDOBUST.
[BANDIKAI.
ban'da·ka (băn'dȧ·kȧ). Var. of
ban'dal. Var. of BANDLE.
ban·da'ree. Var. of BHANDARI.
ban'de·lier'. Var. of BANDOLEER.
ban'de·lore. Var. of BANDALORE.

ba·sal′toid (bȧ·sôl′toid), *adj.* [*basalt* + *-oid.*] Basaltiform.
ba·salt′–por′phy·ry, *n.* *Petrog.* A basalt characterized by prominent phenocrysts of olivine or augite.
basalt quarrier. See QUARRIER.
basal units (of an algebra, *A*, over a field, *R*). *Math.* A set of *n* elements $u_1, u_2, \ldots u_n$ of *A* such that every element, *x*, of *A* is expressible in one and only one way, as $x = \xi_1 u_1 + \ldots + \xi_n u_n$, where $\xi_1, \ldots \xi_n$ are numbers in *R*. The number *n* is called the order of the algebra *A*.
basal wall. *Bot.* The primary wall in archegoniates, dividing the oöspore into an anterior and a posterior half.
bas′a·nite (băz′ȧ·nīt), *n.* [L. *basanites* lapis, fr. Gr. *basanos* the touchstone, of Oriental origin.] **1.** Touchstone. **2.** *Petrog.* An extrusive-igneous rock composed of plagioclase, augite, olivine, and either nephelite or leucite.
ba′sa·ree′ (bä′sȧ·rē′), *n.* [Hind. *bāsrī*, ult. fr. Skr. *vaṁśa* bamboo.] *Music.* A Hindu flageolet with seven holes.
‖**bas′ bleu′** (bä′ blû′). [F., fr. *bas* stocking + *bleu* blue.] A bluestocking; a learned or literary woman.
bas·cine′ case (bȧ·sēn′). [F. boîte *bassine.* Cf. 1st BASIN.] *Horol.* A flush-joining watchcase having no bead or projection on the outside of the cover.
Bas·col′o·gy (băs·kŏl′ō·jĭ), *n.* [See BASQUE; -LOGY.] The science of the language, customs, etc., of the Basques.
bas′cule (băs′kūl), *n.* [F., a seesaw. Cf. BACULE, BATULE.] In mechanics, an apparatus in which one end is counterbalanced by the other, on the principle of the seesaw, or by weights, as in the bascule bridge. See BRIDGE, *Illust.*
bascule bridge. A counterpoised or balanced drawbridge.
bascule escapement. *Horol.* A chronometer escapement in which the detent is mounted on a pivotal axis.

Bascule Bridge.

base (bās), *n.*; *pl.* BASES (bās′ĕz; -ĭz; 119). [F., fr. L. *basis*, fr. Gr. *basis* a stepping, step, a base, pedestal, fr. *bainen* to go, step. See COME; cf. BASIS.] **1.** The bottom of anything, considered as its support; that on which something rests for support; foundation; as, the *base* of a statue. "The *base* of mighty mountains." *Prescott.* **2.** Figuratively, the fundamental or essential part of a thing; essential principle; groundwork.

Though reared upon the *base* of outward things. *Wordsworth.*

Bascule Bridge called "Tower Bridge," London, Eng.

3. *Obs.* **a** The housing of a horse. **b** *pl.* A kind of skirt (often of velvet or brocade, but sometimes of mailed armor) which hung from the waist to about the knees.

Only, my friend, I yet am unprovided Of a pair of *bases.* *Shak.*

c *pl.* The lower part of a robe or petticoat. **d** *pl.* An apron. **4. a** The main or chief ingredient of anything, viewed as its fundamental element or constituent. **b** A supporting or carrying ingredient; an absorbent, as in dynamite. **5.** The point or line from which a start is made in any action or operation; thus, a price used as a unit from which to calculate other prices is often called a *base.* **6.** A starting place or goal in various games. **7.** *Arch.* **a** The lower part of a wall, pier, or column, when treated as a separate feature, usually in projection, or especially ornamented. See ATTIC BASE, *Illust.* **b** The lower part of a complete architectural design, as of a monument; also, the lower part of any elaborate piece of furniture or decoration. **8.** *Baseball.* Any one of the four stations the bounds between which mark the circuit of the infield. **9.** *Bot. & Zool.* That part of an organ by which it is attached to another more central structure of the organism. **10.** *Chem.* A compound capable of reacting with acids to form salts, either with or without the elimination of water, as the caustic alkalies, calcium oxide or lime, ammonia, the alkaloids, etc. Specif.: **a** In the older chemistry, the oxide of a positive element or radical. **b** The hydroxide of a positive element or radical, or, in terms of the dissociation theory, any compound characterized by yielding hydroxyl ions by electrolytic dissociation. **11.** *Cryst.* The basal plane of a crystal. **12.** *Fort.* The imaginary line connecting the salient angles of a bastioned front. **13.** *Geom.* The line or surface constituting that part of a figure on which it is supposed to stand. **14.** *Gram. & Philol.* A root, esp. one reconstructed from various ablaut forms; stem; theme. **15.** *Her.* The lower part of the field. See ESCUTCHEON, 1. **16.** *Mach.* **a** The part on, to, or in which the frame and operating parts of a mechanism are fastened. See BEARING, 11. **b** The part, as a panel board, upon which busses, switches, terminal and contact parts, etc., are mounted. **17.** *Math.* The number with reference to which a mathematical table is constructed; as, the *base* of a system of logarithms. **18.** *Mil. & Nav.* **a** The locality on which a force relies for supplies (*base of supplies*), or from which it initiates operations (*base of operations*); as, a submarine *base.* **b** In evolutions, the element on which a movement or formation is regulated. **c** The lowest part of the hilt of a saber. **19.** *Ordnance.* The rear surface of the breech of an old-time cannon; — more properly, *base of the breech.* **20.** *Petrog.* = BASIS, 9. **21.** *Pharm.* The usually inactive ingredient of a preparation serving as the vehicle for the active medicinal principle; as, the fatty *base* of an ointment or suppository. **22.** *Photog.* A transparent support for light-sensitive coating, made usually from a cellulose derivative. **23.** *Print.* A support for a printing plate. Cf. BLOCK, *n.*, 32. **24.** *Surv.* A line in a survey which, being accurately determined in length and position, serves as the origin for computing the distances and relative positions of remote points and objects by triangulation.

Syn. — Bottom, ground, groundwork, support. — BASE, BASIS, FOUNDATION agree in denoting the bottom of anything considered as its support. BASE has usually literal, BASIS, chiefly figurative, senses; as, the *base* of a pyramid, the *basis* of exchange. FOUNDATION stresses more than either the idea of a solid underlying groundwork; as, "O fair *foundation* laid whereon to build their ruin" (*Milton*).
— *off one's base.* **a** *Baseball.* Away from the position at a base where one should be. **b** *Slang, U. S.* Absurdly mistaken; also, demented.

base (bās), *adj.*; BAS′ER (bās′ẽr); BAS′EST (-ĕst; -ĭst; 119). [ME. *bas, bass*, fr. OF. *bas* low, fr. LL. *bassus* thick, short, low; cf. L. *Bassus*, a proper name. Cf. ABASE, BASS a part in music.] **1.** Of little, or less than the usual, height; specif., of plants, of low growth; as, *base* shrubs. *Archaic.* **2.** Low in place or position. *Obs.* *Shak.* **3.** Deep or grave in sound. See BASS. **4.** Deep in color; dark. *Obs.* **5.** Of humble birth; of low degree; lowly; mean. *Archaic.* "A peasant and *base* swain." *Bacon.* **6.** Inferior, poor, or debased in quality; specif.: **a** Alloyed with inferior metal; debased; as, *base* coin. **b** Not classical; debased; — of language; as, *base* Latin. **c** *Archaic.* Illegitimate by birth; bastard. *Shak.* **d** Common or poor; shabby; paltry. **7.** Morally low; hence, low-minded; unworthy, without dignity of sentiment; ignoble; mean; as, a *base* fellow; *base* motives. "*Base* ingratitude." *Milton.* **8.** Suitable to, or characteristic of, an inferior person or position; menial; degrading; servile.

Base is the style, and matter mean withal. *Spenser.*

9. Of little comparative value; as, *base* metals, that is, metals inferior to gold and silver, which are precious metals. **10.** *Eng. Law.* Servile; such as was characteristic of the villeins, who held their land at the will of the lord and not upon fixed services; hence, held by villenage; as, *base* services; *base* tenure; *base* tenant.

☞ COMBINATIONS are:

base-begged	base-mettled	base-souled
base-begot	base-minded	base-spirited
basehearted	base-mindedly	base-spiritedness
baseheartedness	base-mindedness	base-witted

Syn. — Dishonorable, evil, infamous, shameful, villainous; abject, contemptible, degraded, despicable, foul, low, petty, sordid, worthless. — BASE, VILE, MEAN, as expressing moral qualities, are arranged in the order of diminishing strength. BASE (opposed to *high-minded*) expresses extreme moral turpitude; VILE (opposed to *pure, noble*), foulness or depravity; MEAN (opposed to *generous, magnanimous*) pettiness or small-mindedness; as, *base* ingratitude, treachery, *vile* insinuations, practices, to take a *mean* advantage; "Always subordinating . . . revenge, the manlier sin, to interest, the *meaner*" (*R. Browning*). What is *base* excites abhorrence or indignation; what is *vile* provokes disgust; what is *mean* awakes contempt. Cf. CONTEMPTIBLE, MENIAL, PETTY, BAD, CORRUPT, FLAGRANT.

When he was a gray-headed old man, the *base* son of a had mother used it to betray him. *Froude.*
Wisdom and goodness to the *vile* seem *vile.* *Shak.*
The man of low cunning had . . . acquired a mastery over the man of high simplicity. The *mean* man had got the better of the generous man. *Dickens.*

Ant. — Excellent, commendable, upright. See NOBLE.

base, *adj.* [From 1st BASE.] That constitutes a base; as, a *base* color, line, or unit.
base (bās), *v.*; BASED (bāst); BAS′ING (bās′ĭng). [From 1st BASE.] *Transitive:* **1.** To form, make, or serve as, a base for. **2.** To put on a base or basis; to found; to establish, as an argument or conclusion; — used with *on* or *upon.* *Bacon.*

Based on the living rock. *Browning.*

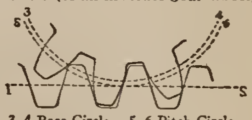
—, *Intransitive:* **1.** To be based; — with *on* or *upon.* **2.** To take up or maintain one's base (sense 18 a).
base, *v. t.* [See 2d BASE; cf. ABASE.] To abase; lower; also, to debase (metals). *Obs.*
base, *n.* [Prob. for *bars*, pl. of *bar.*] Prisoner's base.

Lads more like to run
The country *base* than to commit such slaughter. *Shak.*

base. Obs. or dial. var. of BASS, fish.
base, *n.* [See BASE low.] A deep sound; a bass sound, part, voice, instrument, or singer. See BASS, the usual spelling.
base, *n.* [Cf. F. *barce, berche.*] *Mil.* The smallest of cannon (of the 16th and 17th centuries). *Obs.*
base angle. *Mil.* In artillery fire, the horizontal angle between the base line and the orienting line, measured from the base line in the same direction as angles are measured by the sight on the gun.
base animals. *Law.* See ANIMAL, *n.*, 2 a.
base′ball′ (bās′bôl′), *n.* [See 1st BASE, 6, 8.] A game of ball, developed from the game of rounders, and so called from the four bases or stations which designate the circuit which each player must endeavor to make after becoming a base runner; also, the ball used in this game, made of yarn wrapped tightly around a core of rubber, or cork and rubber, and covered with horsehide, and officially from 5 to 5¼ ounces in weight, and from 9 to 9¼ inches in circumference. The game is played on ground on which there is marked off a square (called the *diamond* or *infield*) with sides 90 feet long the corners of which are called *home base, first base, second base,* and *third base.* There are nine players on each side, whose positions are indicated in the accompanying diagram. The ground outside the diamond and bounded by the extension of the lines between home and first and third base is called the *outfield.* The left-hand, center, and right-hand portions, looking from the home plate, are called *left, center,* and *right field* respectively, and the players stationed in those portions *left, center,* and *right fielder*, or collectively the *outfield* and individually *outfielders.* The first, second, and third basemen and shortstop are called collectively the *infield* and individually *infielders.*

Diagram of Baseball Field, showing positions of players. 1 Pitcher's Plate; 2 Catcher; 3, 4, 5 the 1st, 2d, 3d Basemen; 6 Shortstop; 7, 8, 9 the Left, Center, Right Fielders; 10, 11, 12 First, Second, Third Bases; 13 Home Base; 14, 14 Batsman's Boxes; 15 Catcher's Line; 16 the Players' Lines; 17, 17 Foul Lines; 18, 18 Coacher's Boxes.

base′ball′er (bās′bôl′ẽr), -ist (-ĭst), *n.* A baseball player.
baseball rounders. Game combining baseball and rounders.
base bend. A cast-iron pipe bend having a flange or pad cast on it as a seat for a supporting column or bracket.
base block. A block forming the base of a structure, as the anvil of a power hammer.
base′board′ (bās′bōrd′; 181), *n.* A board situated at, or forming, the base of something; as, the *baseboard* of a camera; specif., *Arch.*, a protecting line of board, or other material, carried round the walls of a room and touching the floor.
base′born′ (-bôrn′; 66), *adj.* **1.** Of low parentage; plebeian. **2.** Born out of wedlock. *Gay.* **3.** Vile; mean. "Thy *baseborn* heart." *Shak.*
base box. A unit of area for tin plate and terneplate, equal to 31,360 sq. in. or 217.78 sq. ft. (20.232 sq. m.). It corresponds to the area covered by 112 plates, each 14 by 20 in.
base′bred′ (-brĕd′), *adj.* Of base origin, breeding, or nature.
base broom. The woadwaxen.
base bullion. Crude lead containing silver or gold and silver.
base′–burn′er (bās′bûr′nẽr), *n.* A stove in which the fuel is fed from a hopper as the lower layer is consumed.
base camp. A military camp at a base (sense 18 a).
base cinnamon. The Chinese cinnamon (see CINNAMON, 1).
base circle. *Mech.* The circle (of an involute gear wheel) from which the involute forming the outline of the tooth face is generated.



3, 4 Base Circle. 5, 6 Pitch Circle. 1, 2 Pitch Line of Rock.

base clef. The bass clef.
base course. *Arch.* The first or lowest course of a wall, as of a foundation wall (called also *foundation course*), or of the wall of a building above the basement.
base′–court′ (bās′kōrt′; 181), *n.* [F. *basse-cour.* See 2d BASE; COURT, *n.*] **1.** The lower, outer, or inferior court of a castle or mansion; the rear courtyard of a farmhouse. **2.** *Law.* An inferior court of law, not of record.
based (bāst), *adj.* Having a base, or having as a base; supported; as, *based* on fact; broad-*based.*
base depot. See DEPOT, 5 a.
Ba′se·dow's dis·ease′ (bä′zĕ·dōz). [After *Basedow*, a Ger. physician who described it in 1840.] Exophthalmic goiter.
base exchange. *Chem.* A reaction in which metals exchange places, as when the calcium and magnesium of the

Classified Definitions

For convenience of reference, many definitions are classified under the name of the science, art, or other technical field in which they occur.

For instance, the word *base* on this page has no fewer than twenty-four definitions. Eighteen of these are classified, in italic type, as belonging to various special fields, such as *Architecture* (*Arch.*), *Baseball, Botany and Zoology, Chemistry, Geometry, Machinery, Mathematics, Pharmacy, Printing,* and *Surveying.*

These classified meanings are arranged in the alphabetical order of their classes, so that if you are reading a book about Architecture, and wish to find the meaning of *base*, you can find the proper definition immediately in its alphabetical place at *Arch.*

If all the definitions preceded by the abbreviation Arch., were brought together they would make an admirable Dictionary of Architecture. In like manner this New Merriam-Webster includes Dictionaries of Music, Art, Rhetoric, Chemistry, Physics, Mechanics, Ethnology, Economics, Law, Medicine, and scores of other subjects.

base′ly, *adv.* **1.** In a base manner; specif., with despicable meanness; dishonorably; shamefully. **2.** Illegitimately; in bastardy. *Archaic.* **3.** *Obs.* **a** In a low tone. **b** At a low value; cheaply.
base′man (bās′măn), *n.*; *pl.* -MEN (-mĕn); *or, sometimes,* **base man.** A man stationed at a base, as in baseball.
base map. A map, having only essential outlines, used for indicating specialized data of various kinds.
base′ment (bās′mĕnt), *n.* [Prob. fr. 5th *base*, *v.* + *-ment.*] **1.** The lowest or basal part of anything. **2.** *Arch.* **a** The lower part of the wall or walls of a building, esp. when forming a distinct architectural feature, as when designed to support an arcade or a series of pilasters. **b** The story in a building behind a wall or walls forming a basement as above.

bas′an (băz′ăn), *n.* [F. *basane.*] = 3d BASIL. ‖**Bas′ Bre·ton′** (bä′ brĕ·tôN′). [F., Low Breton.] = ARMORICAN. **Bas′ca·ma** (bäs′kȧ·mȧ). *Bib.* **basch′lick.** Var. of BASHLYK. **bas′el·net.** Var. of BASINET. **base′ball′dom,** *n.* See -DOM. **base dance.** = DANSE BASSE. *Obs.* **based esquire.** See 1st ESQUIRE. **base′like′,** *adj.* See -LIKE. **Bas′e·math** (băs′ē·măth). *D. Bib.*

C D E F G H I J K L M

Webster's New International Dictionary, *Second Edition*

A Composite Page of Examples of Pronunciation

ad·ver'tise·ment (ăd·vûr'tĭz·mĕnt; -tĭs·mĕnt; *or, esp. U.S.,* ăd'vẽr·tīz'mĕnt; 277), *n.* Also **ad·ver'tize·ment.** [F. *avertissement*, formerly also *advertissement*, a giving notice.] **1. a** *Obs.* Act of adverting. **b** *Obs.* Admonition; warning. **c** *pl. Archaic.* Instructions; precepts.
2. A public notice, esp. in some public print, as a newspaper, periodical, book, poster, or handbill; anything that advertises; as, a newspaper having many *advertisements*.

a'pri·cot (ā'prĭ·kŏt; ăp'rĭ-; 277), *n.* [F. *abricot*, fr. Pg. *albricoque*, fr. Ar. *al-burqūq*, fr. Gr. *praikokion*, fr. L. *praecoquum*, neut. of *praecoquus*, *praecox*, early ripe. See PRECOCIOUS.] **1. a** The oval, orange-colored fruit of a tree (*Prunus armeniaca*) of the peach family, in flavor resembling both peach and plum. **b** The tree itself, which is cultivated throughout the temperate zone.

aq'ua·ma·rine' (ăk'wȧ·mȧ·rēn'; ā'kwȧ-; 277), *n.* [L. *aqua marina* sea water.] **1.** *Mineral.* A transparent variety of beryl, blue, blue-green, or green in color. See BERYL.
2. A color, green-blue in hue, of low saturation and medium brilliance. Cf. COLOR.

a'vi·a'tor (ā'vĭ·ā'tẽr; 277), *n.* [F. *aviateur.*] The operator or pilot of a heavier-than-air aircraft, as an airplane or a seaplane; — often so called regardless of the sex of the operator.
Syn. — Airman, flyer.

e'co·nom'ic (ē'kō·nŏm'ĭk; ĕk'ō-; 277), *adj.* [F. or L.; F. *économique*, fr. L. *oeconomicus* orderly, methodical, fr. Gr. *oikonomikos* economical. See ECONOMY.] **1.** Of or pertaining to the management of a household or of a private estate or income; hence, *Now Rare*, thrifty.
2. Of or pertaining to the management of the affairs of a government or community with reference to its source of income, its expenditures, the development of its natural resources, etc.; hence, of or pertaining to, or designating, the science of economics; as, *economic* questions, policy, etc.
3. Of or pertaining to the satisfaction of man's needs; practical in application; utilitarian; as, *economic* botany, geology, etc. Cf. ECONOMIC INTERPRETATION OF HISTORY.

glad'i·o'lus (glăd'ĭ·ō'lŭs; glȧ·dī'ō·lŭs; 277: *see note below*), *n.; pl.* GLADIOLI (-lī), GLADIOLUSES (-lŭs·ĕz; -ĭz; 119). [L., a small sword, the sword lily, dim. of *gladius* sword. See GLADIATOR.] **1.** *Bot.* **a** [*cap.*] A large genus of plants of the iris family (Iridaceae), natives chiefly of Africa, a few of Europe and Asia. They have erect sword-shaped leaves and spikes of brilliantly colored irregular flowers, springing from flat corms. Hybridization has produced numerous races and strains. The parentage of most of these is obscure, but *G. gandavensis*, of hybrid origin, is believed to be the chief source of the open-flowered types, and a South African species, *G. primulinus*, of the hooded and ruffled types. **b** A corm, flower, or plant of this genus.
2. A color, red in hue, of very high saturation and medium brilliance. Cf. COLOR.
3. (*pron.* glȧ·dī'ō·lŭs) *Anat.* = MESOSTERNUM **a**.
☞ The penultimate *o* in this word is short, and the accent, therefore, as Latin, falls upon the antepenult (glȧ·dī'ō·lŭs), and this is the proper pronunciation for the genus name, although glad'i·o'lus is now more usual for the plant name.

in·quir'y (ĭn·kwīr'ĭ; ĭn'kwĭ·rĭ; 277), *n. pl.*; -QUIRIES (-ĭz; -rĭz). [See INQUIRE.] An inquiring; specif.: **a** Seeking; search for truth, information, or knowledge; examination into facts or principles; research; investigation; as, chemical *inquiries*. **b** A seeking for information by asking questions; interrogation; a question or questioning.

clerk (klûrk; *Brit. usually* klärk, *also heard in Amer. dial., as in Kentucky; Scot. & N. Eng. dial.* klĕrk), *n.*

Der'by (dûr'bĭ *or, esp. for senses 2 & 3,* där'bĭ; *in England usually* där'bĭ), *n.* **1.** A town, shire, and earldom of England.
2. (*pron.* där'bĭ) A race for three-year-old horses, run annually at Epsom (near London), for the Derby stakes. It was instituted by the 12th Earl of Derby, in 1780. The course is 1½ miles and 29 yards long (since 1872), and not perfectly level.
3. (*pron.* dûr'bĭ *or* där'bĭ) A race or contest of similar prominence of its kind, in England as well as in other countries.
4. (*pron.* dûr'bĭ; *Brit.* där'bĭ) [*not cap.*] A stiff felt hat with a narrow brim and a dome-shaped crown; a bowler.
5. [*not cap.*] **a** Derby china. **b** A derby float.

dic'tion·ar'y (dĭk'shŭn·ĕr'ĭ *or, esp. Brit.,* -ẽr·ĭ, -rĭ; 68), *n.; pl.* -ARIES (-ĭz). [ML. *dictionarium* or *dictionarius* (sc. *liber*), fr. L. *dictio.* See DICTION.] **1.** A work of reference in which the words of a language (or of some part of it) are listed, now usually with their meanings, spelling variants, etymology, pronunciation, etc.; an alphabetized vocabulary with definitions; a lexicon; a wordbook. Dictionaries of English alone were preceded by bilingual or polyglot dictionaries, and date from the 17th century, when they included only learned words. Dr. Johnson's dictionary (1755) attempted to cover and fix the standard language. Specialized dictionaries, as of spelling, pronunciation, etymology, synonyms, archaisms, dialect, slang, or periods of the language, developed further the materials now represented in general English dictionaries.
2. Vocabulary in use, as by an individual, or in a certain subject; terminology; as, the *dictionary* of literary criticism; also, vocabulary of accepted words; as, not in the *dictionary* of the French Academy.
3. a A lexicon in which are defined words and phrases used in any system or province of knowledge; as, a *dictionary* of botany. **b** A lexicon giving vocabulary in one language, and definitions in another; as, a Greek-English *dictionary*.

ho·tel' (hō·tĕl'; *Brit. also* ō·tĕl', *formerly the usual pron.*), *n.* [F. *hôtel*, fr. OF. *hostel*, *ostel*. See HOSTEL.] **1.** A house providing lodging and usually meals for the public, esp. for transients; an inn, esp. one of the better class.
2. (*F. pron.* ō'tĕl') In French usage: **a** The mansion of a person of rank or wealth. **b** A public building.

in'ter·est·ing (ĭn'tẽr·ĕs·tĭng, -ĭs·tĭng; *or, esp. Brit.,* ĭn'trĭs-; 277: *see note below*), *adj.* **1.** Of concern; important. *Obs.*
2. Engaging the attention; exciting, or adapted to excite, interest, curiosity, or emotion; as, *interesting* news.
— **in'ter·est·ing·ly**, *adv.* — **in'ter·est·ing·ness**, *n.*
☞ As the pron. with accent on the third syllable has long been regarded as not in accordance with good usage, the accent should be placed on the first syllable by those who pronounce the word in four syllables, as is usually done in the U. S.

lieu·ten'ant (lū·tĕn'ănt; *in British use generally* lĕf·tĕn'ănt, l.f., *but in the navy* lĕ-), *n.* [F., fr. *lieu* place + *tenant* holding, pres. part. of *tenir* to hold, fr. L. *tenere*. See LIEU, TENANT. Cf. LOCUM TENENS.]

Pronunciation

The pronunciation is indicated by respelling with symbols corresponding to those which appear in a set of known words printed in a Key Line at the bottom of every open pair of vocabulary pages.

These symbols and diacritical marks are generally used in school books and are, therefore, well known to students and general readers.

On this composite page are illustrative examples of words which are often mispronounced. Where two pronunciations are shown the preferred pronunciation is first.

ad'ver·tise (ăd'vẽr·tīz; ăd'vẽr·tīz'; *see note below*), *v.;* -TISED (-tīzd; -tīzd'); -TIS'ING (-tīz'ĭng; -tīz'ĭng). Also **ad'ver·tize.** [F. *avertir*, formerly also *advertir*, to warn, give notice to, fr. L. *advertere* to turn to. The ending was prob. influenced by *advertisement*. See ADVERT.] *Transitive:* **1.** To notice; observe. *Obs.*
2. To give notice to; to inform; to notify; to make known to; hence, to warn; — often with *of* before the subject of information; as, to *advertise* a man of his loss.

I will *advertise* thee what this people shall do. *Num. xxiv. 14.*

3. To give public notice of; to announce publicly, esp. by a printed notice; as, to *advertise* a sale; hence, to call public attention to, esp. by emphasizing desirable qualities, in order to arouse a desire to purchase, invest, patronize, or the like. Also, to make conspicuous.
——, *Intransitive:* **1.** To take note. *Obs.*
2. To give notice or information; specif., to issue statements, requests, etc., usually in print, to inform or interest the public.
☞ This word, formerly accented *ad·ver'tise*, is now accented *ad'ver·tise* or *ad'ver·tise'*, both accentuations often occurring in the speech of the same person according to the phrase or sentence rhythm.

been (bĭn; bēn; 277: *see note below*). [ME. *ben*, *bin*, past part. of *been* to be. See BE.] **1.** Past participle of the verb *be*.
2. Present plural and infinitive of the verb *be*. *Obs.*

Assembled *been* a senate grave and stout. *Fairfax.*

☞ The usual pronunciation in the United States is *bĭn*; in England, *bēn* is now customary, often becoming *bĭn* when unaccented, but Walker (1791) recognizes only *bĭn*.

da'ta (dā'tȧ; dä'tȧ; 269; 277), *n., pl.* of DATUM; collectively, material serving as a basis for discussion and inference.
☞ Although plural in form, *data* is not infrequently used as a singular; as, this *data* has been furnished for study and decision.

ei'ther (ē'thẽr; ī'thẽr; 277: *see note below*), *adj.* [ME. *either*, *aither*, fr. AS. *ǣgther*, *ǣghwæther*, each; akin to OHG. *eogiwedar*, MHG. *iegeweder*. See AYE always; WHETHER.] **1.** Each of two; the one and the other; as, danger on *either* side; — sometimes, esp. formerly, of more than two, for *each*, *each one*; also, formerly with plurals, for *both*.

His flowing hair
In curls on *either* cheek played. *Milton.*
On *either* side . . . was there the tree of life. *Rev. xxii. 2.*

2. One or the other (of two alternatives); as, take *either* road.

How happy could I be with *either*,
Were t'other dear charmer away. *Gay.*

☞ The pronunciation ī'thẽr is more prevalent in England (esp. in southern England) than in America. In the 17th century the word was pronounced ā'thẽr, as shown by Ellis. According to Walker, both ē'thẽr and ī'thẽr were in general use by 1790.

herb (ûrb; hûrb; 277: *see note below*), *n.* [ME. *herbe*, *erbe*, fr. OF. *herbe*, *erbe* (F. *herbe*), fr. L. *herba*, of uncert. origin.] **1.** A seed plant which does not develop woody persistent tissue, as that of a shrub or tree, but is more or less soft or succulent. Herbs are *annual*, *biennial*, or *perennial*, according to the length of life of their roots. See ANNUAL, BIENNIAL, PERENNIAL; cf. SHRUB, TREE.
2. Grass or herbage collectively.

Grazing the tender *herb*. *Milton.*

3. A plant of economic value; specif., one used for medicinal purposes, or for its sweet scent or flavor.
4. The top or foliage of a herbaceous plant as distinct from the root.
☞ The historical pronunciation is *ûrb*, which still prevails in the best usage in the United States, although *hûrb* is also used. In England *hûrb* has increased in use since about 1800, and now apparently prevails in the best usage.

val'et (văl'ĕt; -ĭt; văl'ā; 119; 277: *see note below*), *n.* [F. *valet*, fr. OF. *vallet*, *varlet*, *vaslet*. See VARLET, VASSAL.]
☞ *Valet* has been Anglicized since the 17th century. Dr. Johnson (1755) gives val'et, Buchanan (1766) văl'ĕt, Sheridan (1797) văl'ĕt, Smart (1836) văl'ĕt, and the best usage still prefers văl'ĕt; -ĭt.

vase (vās; vāz; *or, esp. Brit.,* väz, vôz; 277: *see note below*), *n.* [F., fr. L. *vas*, also *vasum*, of obscure origin. Cf. VASA, VASCULAR, VESSEL.] **1.** A vessel, usually rounded and of greater depth than width, commonly decorative and now used chiefly for ornament or for flowers, though also adapted for various domestic purposes, and used anciently in sacrifices; as, a porcelain *vase*; a Grecian *vase*.
2. *Arch., Furniture, etc.* An ornament having the form of a vase (sense 1).
☞ The pron. vās, like *case*, *base*, etc., given by most orthoëpists before Walker (1791), prevails in America, though vāz, like *phase*, *phrase*, etc., given by Walker is used by many; väz prevails in British usage.

ac·cli'mate (ă·klī'mĭt; ăk'lĭ·māt), *v. t. & i.;* -MAT·ED (-mī·tĕd; -māt'ĕd; -ĭd); -MAT·ING (-mī·tĭng; -māt'ĭng). [F. *acclimater*, fr. *à* to + *climat* climate. See CLIMATE.] To habituate, or cause habituation, to a climate not native; to acclimatize.

a·dult' (ȧ·dŭlt'; ăd'ŭlt), *n.* A person, animal, or plant grown to full size and strength; one who has reached maturity. In the common law the term is applied to persons of full age; in the civil law, to males after the age of fourteen and to females after twelve; in the Mohammedan law of India, to males or females after fifteen. See AGE, *n.*, 3.

a'li·as (ā'lĭ·ăs), *adv.* [L., fr. *alius* other. See ELSE.] *Law.* **a** Otherwise; otherwise called; — used (the full form being **a'li·as dic'tus**) in legal proceedings to connect the different names of anyone who has gone or been known by two or more; as, Smith, *alias* Simpson. **b** At another time.

com'pa·ra·ble (kŏm'pȧ·rȧ·b'l; *orig. accented* com·par'a·ble), *adj.* [F., fr. L. *comparabilis.*] Capable of being compared (with); worthy of comparison (to). — **com'pa·ra·ble·ness** *n.* — **com'pa·ra·bly**, *adv.*

cou'pon (kōō'pŏn *or, esp. Brit.,* kōō'pông; *in U.S. often, incorrectly,* kū'pŏn), *n.* [F., fr. *couper* to cut, cut off. See COPPICE.] **1.** *Com.* A certificate of interest due, attached to transferable bonds, given for a term of years, designed to be presented for payment when interest is due.
2. A section of a ticket, showing the holder to be entitled to some service, as to a passage over a designated line of travel, a particular seat in a theater, etc.
3. A token or certificate given with a purchase of goods and redeemable in merchandise or cash. Cf. TRADING STAMP.
4. A part of a printed advertisement designed to be cut or torn off for use as an order blank or as a form for inquiry.
5. A sample from a piece of material for use as a test.

do'gie (dō'gĭ), *n.* **1.** A motherless calf in a range herd; — a cowboy term. *Western U.S.*
2. An inferior animal; — said esp. of cattle.

gra'tis (grā'tĭs; 277), *adv.* [L., contr. fr. *gratiis* out of favor or kindness, without recompense, for nothing, fr. *gratia* favor. See GRACE.] For nothing; without fee or recompense; freely; gratuitously. — *adj.* Gratuitous; also, free.

jodh'purs (jŏd'pŏŏrz), *n. pl.,* or **jodh'pur breech'es** (-pŏŏr). [From *Jodhpur*, Rajputana.] A kind of riding breeches that fit closely from the knee so just above the ankle.

ro'de·o (rō'dē·ō; rō·dā'ō), *n.* **a** A place where cattle are collected, esp. a market place. **b** *Western U.S.* A roundup. See ROUNDUP. **c** Figuratively, any spectacle like, or likened to, a roundup; specif., an entertainment or public performance presenting the chief features of a roundup, as lariat throwing, horse breaking, etc.

ad·dress' (ă·drĕs' *or, esp. in sense 4,* ăd'rĕs; 277), *n.* [From F. *adresse* and E. ADDRESS, *v.*] **1.** *Obs.* **a** Act of preparing; state of being prepared; that which is prepared; dress. **b** An addressing oneself or one's words to a person.
2. Skillful management; dexterity; adroitness.

It was now a trial of *address* between these various . . . gentlemen, who should first pounce upon the victim. *C. Lever.*

3. A formal communication, either written or spoken; discourse; speech; a formal application to anyone; petition; a formal statement on some subject or special occasion; as, an *address* of thanks; an *address* to the voters.
4. The directions for delivery of a letter, package, etc., esp. as written, stamped, or printed on an outer surface; the name of the addressee, the designation of place of delivery, and the salutation ("Dear Sir:") at the beginning of a letter; the name or description of a place of residence, business, etc., where a person may be found or communicated with.

re·veil'le (rē·vāl'yĭ; rĕv'ĕ·lē'; *Brit.* rē·vĕl'ĭ, rē·văl'ĭ; 277: *see note below*), *n.* [F. *réveillez*-vous, imper. of *se réveiller* to get awake, fr. *réveiller* to awaken, arouse, fr. *re-* re- + *éveiller*, fr. OF. *esveillier* to rouse, to watch, fr. (assumed) VL. *exvigilare*, fr. L. *evigilare*, fr. *e-*, *ex-* + *vigilare*, to watch, wake. See EX-; VIGILANT.] *Mil. & Nav.* A signal, usually sounded by bugle, fife, or drum, at about sunrise, summoning soldiers or sailors to the day's duties and notifying sentinels that they may refrain from challenging. It is immediately preceded by a single gun.
☞ The usual pron. in the U. S. service is rĕv'ĕ·lē' (or rĕv'ĕ·lē'), and this is also common in general use in America; in the British service rē·vĕl'ĭ (or rē·văl'ĭ) is usual.

sched'ule (skĕd'ūl; *Brit. now always* shĕd'ūl; *see note below*), *n.* [After ML. *schedula*, fr. ME. *cedule*, *sedule*, fr. OF. *cedule*, fr. LL. *scedula*, dim. of L. *sceda*, *scheda*, *scida*, a leaf of paper or papyrus, fr. Gr. *schidē* a split piece of wood, fr. *schizein* to split. See SHED, *v. t.*; cf. CEDULE.] **1.** A writing; document; specif., a separate supplementary slip appended to a document. *Obs.*
2. A written or printed formal list; often, a list, catalogue, or inventory, annexed to a larger document, as to a will, a lease, a statute, etc.; as, a *schedule* of a bankrupt's debts or creditors; a *schedule* of trains or steamers.
3. Hence, an appended statement of supplementary details, as accompanying a legal or legislative document; as, *Schedule* D of the tariff bill.
4. A written plan of future procedure in the carrying out of some project, indicating the time when each operation is to be begun and completed; as, a *schedule* for the construction of a building; esp., an outline of regularly recurring events; as, a train *schedule*.
5. *Building Trades.* A bill of quantities.
Syn. — Catalogue, inventory. See LIST.
☞ Price (1668) gives skĕd'ūl; *The English Scholar* (1687), sĕd'ūl, sĕd'ōōl; Jones (1701), skĕd'ūl, sĕd'ūl; Walker, (1791) sĕd'jūl, (1806) sĕd'jūl, skĕd'-; Smart (c. 1840), shĕd'ūl.

Fa·scis'ti (fȧ·shĭs'tē; *It.* fä·shē'stē), *n. pl.* [It., fr. *fascio* (see FASCISM), with ref. also to It. pl. *fasci* fasces and L. *fasces*, as if meaning "bearer of the fasces," because the *Fascisti* are supposed to typify obedience to the law as did the lictors in ancient Rome.] An Italian organization, originated by loyal patriots to oppose all radical elements in the country, as Bolshevists, Communists, and the like. It was organized in 1919; under the leadership of Benito Mussolini, it became identical with the government of the state, which it reorganized, embodying many of the syndicalist principles. Each local branch is called a *Fascio*, and all the organizations collectively form the *Fasci*. Cf. BLACK SHIRT. Hence, elsewhere, as in Great Britain, Germany, Mexico, Japan, etc., a similar organization.

Na'zi (nä'tsē), *n.; pl.* NAZIS (-tsēz). [G., fr. *Nationalsozialistische (Partei).*] A member of the National Socialistic party of Germany; a Hitlerite.

Webster's New International Dictionary, *Second Edition*

A Composite Page Illustrating the Treatment of Etymologies

na·stur'tium (nȧ·stûr'shŭm), *n.* [L., a cress, prop., nose-twist, in allusion to its pungency, fr. *nasus* nose + *torquere, tortum,* to twist. See NOSE; TORTURE.] **1.** (*pron.* nȧ·stûr'shĭ·ŭm) [*cap.*] *Bot.* Syn. of RORIPA.
2. *Hort.* Any plant of the genus *Tropaeolum,* esp. *T. majus* and *T. minus.* They are smooth herbs having peltate leaves, and showy spurred flowers in widely varying shades of red and yellow. The plants contain a pungent juice, and the seeds and flower buds are used in salads and pickles. See TROPAEOLUM.

can'di·date (-dāt *or, esp. Brit.,* -dĭt), *n.* [L. *candidatus,* n. (because candidates for office in Rome were clothed in a white toga), fr. *candidatus* clothed in white, fr. *candidus* glittering, white. See CANDID.] **1.** One who offers himself, or is put forward by others, as a suitable person or an aspirant or contestant for an office, privilege, or honor; as, a *candidate* for governor; a *candidate* for holy orders.
2. One who is thought likely or worthy to gain a post or position, or likely to come to some place or end; as, a *candidate* for high honors; a *candidate* for the penitentiary.

know (nō), *v.*; *past tense* KNEW (nū; 242); *past part.* KNOWN (nōn); *pres. part. & verbal n.* KNOW'ING. [ME. *knowen, knawen,* fr. AS. *cnāwan*; akin to OHG. *knāan* (in comp.), ON. *knā* can, OSlav. *znati* to know, L. *gnoscere, noscere,* Gr. *gignōskein,* Skr. *jānāti* knows, Lith. *žinoti* to know, Goth. *kunnan.* See KEN, CAN to be able; cf. ACQUAINT, COGNITION, DIAGNOSIS, GNOMIC, GNOSTIC, IGNORE, NARRATE, NOBLE, NORMAL, NOTE, NOTICE, QUAINT.] *Transitive*: **1.** To perceive directly; to apprehend immediately by the senses or by the mind; esp., to perceive or apprehend as familiar or intelligible; to recognize; to discern the character of; hence, to recognize as distinct from something else; to distinguish; specif., *Obs.,* to recognize as having authority.
And their eyes were opened, and they *knew* him. *Luke* xxiv. 31.

al'che·my (ăl'kē·mĭ), *n.* [OF. *alkemie, alquimie* (F. *alchimie*), fr. ML. *alchimia,* fr. Ar. *al-kīmiyā',* fr. LGr. *chēmeia,* proh. for *chymeia* a mingling, infusion, fr. *chymos* juice, esp. as extracted from plants, fr. *cheein* to pour; chemistry was orig. the art of extracting medicinal juices from plants. See FOUND to cast; cf. CHEMISTRY.] **1.** The mediæval chemical science and speculative philosophy, whose great objects were the transmutation of the base metals into gold and the discovery of the universal cure for diseases and means of indefinitely prolonging life; also, the pseudo art practiced by those who professed to have accomplished one of these objects, or a modern pseudo science professing similar aims. Alchemy as a science produced discoveries which led the way to modern chemistry.

dam'sel (dăm'zĕl), *n.* Also, *Poetic and Archaic,* **dam'o·zel** (-ō·zĕl). [ME. *damesel, damaisele, dameisele,* fem., fr. OF. *damoisele, dameisele,* gentlewoman (F. *demoiselle* young lady); cf. OF. *damoisel* young nobleman, F. *damoiseau*; fr. (assumed) VL. *dominicella,* fem., *dominicellus,* masc., dim. fr. L. *domina, dominus.* See DAME; cf. DAMOISEAU, DEMOISELLE, DONCELLA.] **1.** A young maid or young man of noble or gentle birth. *Archaic.*
2. A young unmarried woman; a girl; a maiden.
3. A waiting maid, orig. one of gentle birth. *Obs.*
4. *Milling.* An attachment to a millstone spindle for shaking the hopper.

con'gre·ga'tion (kŏng'grē·gā'shŭn), *n.* [OF. *congregacion* (F. *congrégation*), fr. L. *congregatio.*] **1.** Act of congregating, or bringing together; state of being congregated. Also, a collection or mass of separate things.
A foul and pestilent *congregation* of vapors. *Shak.*
2. An assembly of persons; a gathering; esp., an assembly of persons met for the worship of God, and for religious instruction; a body of people who habitually so meet.
3. In the Bible (Heb. *qahal*), the whole body of the Jewish people; — called also *Congregation of the Lord.*

cur'few (kûr'fū), *n.* [ME. *courfew, curfu,* fr. OF. *cuevrefu, covrefeu* (F. *couvre-feu*), fr. *covrir* to cover + *feu* fire, fr. L. *focus* fireplace, hearth. See COVER; FOCUS.] **1.** A regulation directing that fires be covered or extinguished at a fixed hour in the evening, when a bell was rung, in force in Europe in the Middle Ages; also, the ringing of the bell, the time of its being rung, or the bell itself; hence, the ringing of a bell in the evening as a signal, as for retirement of persons, now usually juveniles, from the streets.

im·pede' (ĭm·pēd'), *v. t.*; IM·PED'ED (-pēd'ĕd; -ĭd; 119); IM·PED'ING (-pēd'ĭng). [L. *impedire,* lit., to entangle the feet, fr. *im-* in + *pes, pedis,* foot. See FOOT; cf. IMPEACH.] To stop in progress; to obstruct; hinder.

pe·cu'ni·ar'y (pē·kū'nĭ·ĕr'ĭ *or, esp. Brit.,* -kū'nyĕr·ĭ; -nĭ·ĕr·ĭ; 159), *adj.* [L. *pecuniarius,* fr. *pecunia* money, orig., property in cattle, fr. *pecus* cattle. See 1st FEE; cf. PECULIAR.]
1. Consisting of money; exacted or given in money; also, entailing a money penalty; as, a *pecuniary* penalty or reward; *pecuniary* aid.
2. Relating or pertaining to money; monetary; as, *pecuniary* affairs, losses, difficulties, or considerations.
Syn. — See FINANCIAL.

cal'i·co (kăl'ĭ·kō), *n.*; *pl.* -COES or -COS (-kōz). [So called because first imported from *Calicut,* India.] **1.** Orig., cotton cloth of any kind imported from India and the East; later, any of various cotton stuffs of European make.
2. Plain white cotton cloth, which receives distinctive names according to quality and use; as, super *calicoes,* shirting *calicoes,* unbleached *calicoes,* etc. *Eng.*
3. Cheap cotton cloth printed with a figured pattern. *U. S.*

mus'lin (mŭz'lĭn), *n.* [F. *mousseline,* fr. It. *mussolino,* fr. colloq. Ar. *mūṣilī,* lit., of or from Mosul (Ar. al-*Mawṣil*), city of Mesopotamia, where it was first made.] **1.** Any of various cotton cloths; as: **a** More fully *India,* or *Indian, muslin.* A very thin, fine, and soft plain cloth made in India, or an imitation of it. **b** A stouter fabric, of varying fineness, plain, printed, dyed, or dotted, used for women's garments. **c** *U. S.* Any of various coarser and heavier cotton goods.

rat·tan' (ră·tăn'), *n.* Also **ra·tan'.** [Malay *rotan.*] **1.** **a** Also **rattan palm.** Any climbing palm of the genera *Calamus* and *Daemonorops,* remarkable for the great length attained by their stems. **b** A portion of one of these stems. They are very tough, and are used for walking sticks, wickerwork, chairs, seats of chairs, cords, cordage, etc. See CALAMUS, 3.
2. A rattan cane or switch.

‖**sfor·zan'do** (sfôr·tsän'dō), ‖**sfor·za'to** (sfôr·tsä'tō), *adj.* [It. *sforzando,* pres. part., and *sforzato,* past part., of *sforzare* to force.] Accented; — used chiefly in musical directions indicating that a single tone or chord is to be sounded more loudly than the rest of the passage, and usually marked *sf, sfz,* or >.

The Etymologies

It is most interesting to study the curious changes that have taken place in a word's form and meaning.

Nasturtium is a Latin word that was applied to a kind of cress, and meant literally "nose twister." The name arose from the fact that the pungent taste of this particular cress caused one to make a wry face. Anyone who has inadvertently, or by design, bitten into a nasturtium seed will appreciate that the name is just as appropriate for our modern garden plant.

Neighbor is one of those interesting words that carry us back to Anglo-Saxon days. In Anglo-Saxon, *neahgebur* meant nigh-dweller, i. e. a dweller or farmer who lived near. Its meaning, changing with the evolution of civilization, no longer applies particularly to neighboring farmers, but refers to persons living near each other.

Many thousands of etymologies are indicated by combining forms. The dictionary definition of *combining form* is given in column 3 of this page, with examples and words thus etymologized.

rune (rōōn; 242), *n.* [AS., Dan., and ON.; AS. *rūn* a rune, a secret, a mystery; akin to Dan. *rune,* ON. *rūn,* OHG. & Goth. *rūna* a secret, secret colloquy, OIr. *rūn* a secret, and to L. *rumor* noise, report, *raucus* hoarse, Skr. *rauti* he roars, cries. Cf. ALRAUN, RAUCOUS, ROUN, RUMOR, RUT of animals.] **1.** Any of the characters or signs of the alphabet formerly in general use by the Teutonic, or Germanic, peoples from about the 3d century A.D. In its early form the runic alphabet, generally known as the *futhorc,* or *futhark* (see FUTHORC), consisted of 24 characters, some being dropped in later forms, as the Norse. The origin of these symbols is obscure, but they are probably from both Latin and Greek. The runes were employed as magic signs, and in writing, secret or otherwise. In England the runic alphabet preceded the Roman, and for inscriptions it survived almost to the end of the Anglo-Saxon period. Runes are found in several Anglo-Saxon manuscripts, and in a number of inscriptions, notably those on the Ruthwell cross, Dumfries, Scotland, and the Bewcastle cross, Cumberland, England.

Runes representing the name "Cynewulf."

bed'lam (bĕd'lăm), *n.* [ME. *Bedlem, Bethlem,* Bethlehem. See BETHLEHEM.] **1.** [*cap.*] Bethlehem, the town. *Obs.*
2. [*cap.*] The hospital of St. Mary of Bethlehem in Lambeth (orig. in Bishopsgate), London, founded as a priory in 1247, but used as a hospital for lunatics as early as 1402.
3. A lunatic; madman; also, madness; specif., *Obs.,* a discharged, often imperfectly cured, patient of Bedlam hospital, licensed to beg, and hence called also **bedlam beggar.**
4. A lunatic asylum; a madhouse.
5. Any place or scene of uproar and confusion; a tumult.

neigh'bor, neigh'bour (nā'bẽr), *n.* [ME. *neighebour,* fr. AS. *nēahgebūr,* lit., nigh-dweller; akin to D. *nabuur,* G. *nachbar,* OHG. *nāhgibūr.* See NIGH; BOOR.] **1.** A person who lives near another; one whose abode is (relatively) not far off; as, *neighbors* of the same village.
2. A person or thing which is near another.
And every one looked in his *neighbor's* face. *Shelley.*
3. One entitled as a fellow being to receive, and expected to render, kindness. Cf. *Luke* x. 27, 36, 37.
4. One on friendly terms; — often used in familiar address.
5. One of a pair; a fellow; mate. *Chiefly Scot.*

yule (yōōl), *n.* [ME. *yol, ȝol,* fr. AS. *ġeōl, geohhol*; akin to AS. *ġeōla* December or January, ON. *jōl* yule, *ȳlir* the name of a winter month, Goth. *jiuleis,* Sw. *jul* Christmas, Dan. *jaul.* Cf. JOLLY.] **1.** Formerly *Scot. & N. of Eng.* Christmas or Christmastide; the feast of the Nativity of Jesus Christ.
2. An exclamation or salute expressive of joy used by merrymakers at Christmas. *Obs.*

ta'luk·dar' (tä'lōōk·där'), *n.* [Per. *ta'alluqdār,* fr. Ar. *ta'alluq* estate + Per. *-dār* holder.] *India.* **a** *Obs.* A collector of the revenue of a taluk; a tahsildar. **b** A proprietor of a taluk; a landholder. He is responsible for the public revenue due from his estate.

tao'tai' (dou'tī'), *n.* [Chin. (Pek.) *tao⁴-t'ai²* intendant of a circuit or *tao*; changed after 1911 to *tao⁴-yin³.*] Formerly, in China, an official at the head of the civil and military affairs of a circuit, which consisted of two or more *fu,* or territorial departments; — called also, by foreigners, *intendant of circuit.* Foreign consuls and commissioners of customs associated with taotais as superintendents of trade at the treaty ports were ranked with the taotai.

su'per·cil'i·ous (-ĭ·ŭs), *adj.* [L. *superciliosus,* fr. *supercilium* an eyebrow, pride, fr. *super* over + *cilium* eyelid; akin to L. *celare* to conceal. See HELL; cf. 1st SEEL.] Lofty with pride; haughtily contemptuous; also, *Now Rare,* overbearing; arbitrary; hypercritical; as, a *supercilious* officer or manner.
Syn. — See ARROGANT. **Ant.** — Diffident. See HUMBLE.

triv'i·al (trĭv'ĭ·ăl), *adj.* [F. *trivial,* fr. L. *trivialis,* prop., that is in, or belongs to, the crossroads or streets, hence, that may be found everywhere, common, fr. *trivium* a place where three roads meet, a crossroad, the street, fr. *tri-* (see TRI-) + *via* a way. See VIA, *n.*; cf. VOYAGE.]
1. Common; ordinary; commonplace; trite. *Archaic.*
The *trivial* round, the common task. *Keble.*
2. Of little worth or importance; trifling; petty; paltry; as, a *trivial* affair; *trivial* arguments; also, rarely, of a person, trifling. "As a scholar . . . *trivial.*" *De Quincey.*
3. Of or pertaining to the trivium.
— **triv'i·al·ly,** *adv.* — **triv'i·al·ness,** *n.*

chap'el (chăp'ĕl; -'l), *n.* [ME., fr. OF. *chapele* (F. *chapelle*), fr. LL. *cappella,* orig., a short cloak, hood, or cowl, later, a reliquary, sacred vessel, chapel, dim. of *cappa* cloak, cape, cope, also, a covering for the head. The chapel where St. Martin's cloak was preserved as a precious relic itself came to be called *cappella,* whence the name was applied to similar places of worship, and the guardian of this cloak was called *cappellanus,* or chaplain. See 1st CAP; cf. CHAPLAIN, CHAPLET.] **1.** A subordinate place of worship, esp. of Christian worship; a sanctuary other than a parish or cathedral church.
2. Specif., a private place of worship or oratory; as: **a** One not connected with a church; as, the *chapel* of a palace, hospital, prison, or college. **b** An oratory in a mausoleum, aisle, or other place, containing an altar at which masses may be chanted for the souls of the dead; a chantry; hence, a room, recess, or cell in a cathedral or other church, containing an altar and separately dedicated.
3. A choir of singers belonging to a chapel, as of a prince; hence, the choir, or the orchestra, or both, attached to the court of a prince or nobleman.
4. The sacred vessels and other accessories required for the performance of divine services. *Obs. exc. Hist.*
5. Of certain churches, a place of public worship subordinate to, or dependent on, the parish church, to which it is a supplement of some kind; as, a parochial *chapel.*
6. A chapel service, as at a college or university; attendance at a chapel service; as, *chapel* is required.

strike (strīk), *v.*; *past tense* STRUCK (strŭk); *past part.* STRUCK, or, *Chiefly Poet. or Rhet.,* STRICK'EN (strĭk'ĕn), *Obs.* STROOK (strōōk), STRUCK'EN (strŭk'ĕn); *pres. part. & verbal n.* STRIK'ING (strīk'ĭng). [ME. *striken* to strike, stroke, proceed, flow, fr. AS. *strīcan* to go, proceed; akin to D. *strijken* to rub, stroke, strike, to move, go, G. *streichen,* OHG. *strīhhan,* L. *stringere* to touch lightly, to graze, to strip off (but not to L. *stringere* in the sense to draw tight), *striga* a row, furrow, *stria* furrow, Gr. *strinx* a row, line. Cf. STREAK, STRIATED, STRICKLE, STRICTURE, STRIGIL, STROKE, TRICKLE.] *Transitive*: **1.** To touch or hit with some force, either with the hand or an instrument; to smite; to give a blow to; as, to *strike* one with a whip.
2. To come in collision with; as, the ship *struck* a reef; of a bird of prey, as a hawk, to attack and sink its talons into; of lightning or a thunderbolt, to fall upon with blasting effect; as, the bolt *struck* him down; also, to injure or destroy with a lightning stroke; as, the barn was *struck* by lightning.

Combining Forms

combining form. A word or word element used with another word or element to form a compound. See COMPOUND, *n.*, 3. Combining forms are of two kinds: (1) formations on Greek or Latin stems with or without an added vowel (as *o* in Greek and *i* in Latin), as in *phono*graph, *multi*graph, grapho*phone*; (2) English words used without change in form to create combinations, as in trade-*mark,* sweet*meat,* crack*brained,* star*lit,* *kill*-joy. Combining forms have concrete sense and co-ordinating or modifying function, as in *medico*legal, *auto*mobile, *cardio*genesis, *tele*graph, as contrasted with *prefixes* and *suffixes,* which have abstract sense and derivative, formative, or inflectional function, as in *ille*gal, demol*ize,* dead*ly,* head*ed.* Cf. PREFIX; SUFFIX.

ge'o- (jē'ō-). A combining form, Greek *geō-* (as in *geōgraphia,* geography), fr. *gaia, gē,* the earth, signifying *earth, ground, soil,* as in *geo*phyte. For the meanings of the following, see the definitions of their elements.

geoaesthesia	geodiatropism	geogeny
geoagronomic	geothenic	geolatry
geobiologic	geeform	geonyctinastic
geobiology	geogenesis	geonyctitropic
geoblont	geogenetic	geoparallelotropic
geochronology	geogenic	geoplagiotropism

mi'o- (mī'ō-). A combining form, Greek *meio-,* from *meiōn,* denoting *smaller, less,* as in *Mio*cene; also, in *Med., decrease or contraction,* as in **mi'o·car'di·a** (see -CARDIA); **mi'o·plas'mi·a,** abnormal decrease of plasm.

-pathy. Also **-path'i·a** (-păth'ĭ·ȧ). [See PATHOS.] Comb. form, Greek *-patheia,* from *pathos,* suffering, meaning *liability to feeling,* used to denote: **a** *Feeling, suffering, affection,* as in a*pathy,* sym*pathy,* tele*pathy.* **b** *A disease of a* (specified) *part or type,* as in idio*pathy,* neuro*pathy,* psycho*pathy,* myo*pathy,* myo*pathia.* **c** [From homeo*pathy.*] *Treatment of ailments of a* (specified) *kind or* (preferably *-therapy*) *by a* (specified) *mode,* as in osteo*pathy,* allo*pathy,* vita*pathy.* Derivative adjectives are formed in **-path'ic** (-păth'ĭk).

-there (-thēr). *Zool.* A combining form from Greek *thēr,* beast, denoting *an individual animal* of the genus or class denoted by the corresponding noun ending in *-therium* or *-theria,* as in mega*there,* proto*there.*

Di'no·sau'ri·a (-sô'rĭ·ȧ), *n. pl.* [NL., fr. *dino-* + *-sauria.*] *Paleontol.* A group of reptiles, which appeared in the Trias and became extinct with the close of the Mesozoic. They were nearly world-wide in distribution, but their remains are especially numerous and well preserved in some States of the western U. S. The earlier types are closely related to the early Crocodilia.

tra'che·ot'o·my (-mĭ), *n.* [*tracheo-* + *-tomy.*] *Surg.* The operation of making an opening into the trachea. — **tra'che·ot'o·mist** (-mĭst), *n.*

spo'ro·cyst (spō'rō·sĭst), *n.* [*sporo-* + *-cyst.*] **1.** *Zool.* **a** (1) The case or cyst secreted by certain protozoans preliminary to the production of spores by sporulation. (2) A protozoan in such an encysted condition.

ca·reen' (kȧ·rēn'), *v.*; CA·REENED' (-rēnd'); CA·REEN'ING. [F. *cariner, caréner*, fr. *carine, carène*, keel, fr. It. *carena*, fr. L. *carina* keel of a ship, shell of a nut; akin to Gr. *karyon* a nut. Cf. GILLYFLOWER.] *Transitive*: **1.** *Naut.* **a** To cause (a vessel) to lean over on one side, leaving the other side accessible for repairs below the water line; also, to clean, calk, or repair (a vessel in this position). Before dry docks came in use, vessels were often careened on a beach when the bottom had to be cleaned or repaired. **b** To cause to heel over; as, high waves *careened* the ship. **2.** Humorously, to cleanse or repair, as a wig. *Obs.* **3.** To tip or incline, as a cart to unload contents.
—, *Intransitive*: **1.** To lie or heel over, as a ship under a breeze; hence, to lurch; to sway from side to side.
2. To perform the operation of careening a ship, or cleaning, calking, or repairing her when in a careened position; as, orders were to *careen* and refit; of a ship, to undergo this process; as, the ship is *careening* at that port.
Syn. — See TIP.
ca·reen', *n.* Act or process of careening; state of being careened; careened position.
ca·reen'age (kȧ·rēn'ĭj), *n.* *Naut.* **a** Act or expense of careening. **b** A place for careening.
ca·reen'er (-ẽr), *n.* One who or that which careens.
ca·reer' (kȧ·rēr'), *n.* [F. *carrière* highroad, racecourse, course, running, fr. It. *carriera*, fr. *carro* wagon, chariot. See CAR; cf. CARIOLE.] **1.** A running; a course, esp. a swift one, as of the sun or a star through the heavens; hence, speed; full speed or exercise of activity; — chiefly in phrases like *in full career*.

The *career* of armed steeds. *Shelley.*

2. *Obs.* **a** Of a horse, a short gallop or run at full or great speed; — often in phrase *to pass (a) career*. Fig., a charge; encounter, as in a tournament; also, a gambol or frisk. **b** A racecourse; the lists at a tournament; also, way; road.
3. A course of continued progress in the life of a person, nation, etc.; a field for, or pursuit of, consecutive progressive achievement, esp. in public, professional, or business life; as, Washington's *career* as a soldier; the *careers* open to educated men.
4. *Diplomacy.* The profession of an officer in the diplomatic and consular branches of the Foreign Service (which see) of the United States, demanding special preparation and examination and undertaken as a permanent calling in life; — often in the phrase *of career*; as, a consul *of career*.
ca·reer', *v.*; -REERED' (kȧ·rērd'); -REER'ING. *Intransitive*: **1.** To make a career or short gallop; to charge. *Obs.* **2.** To move or run rapidly; to gallop.

Careering gaily over the curling waves. *Irving.*

—, *Transitive*: **1.** To cause to career, as a horse.
2. To go over or across in a career.
career diplomat *or* **man.** A man who elects work in the diplomatic service as a life career, as distinguished from one appointed directly to a high position, as of ambassador.
ca·reer'er (kȧ·rēr'ẽr), *n.* One who or that which careers.
ca·reer'ist (-ĭst), *n.* One pursuing or bent upon a career.
ca·reers' mas'ter (kȧ·rērz'). Vocational adviser; — a title used in some English schools.
care'free' (kâr'frē'), *adj.* Free from care; having no worries; hence, happy; lighthearted.
care'ful (kâr'fo͝ol; -f'l), *adj.* [AS. *cearful*.] **1.** *Obs.* **a** Full of grief or sorrow; mournful. **b** Causing fear; dreadful.
2. *Archaic.* **a** Full of care; anxious; solicitous; troubled.

Be *careful* [Rev. Ver. "anxious"] for nothing. *Phil.* iv. 6.

b Filling with care or solicitude; causing, or exposing to, concern, anxiety, or trouble; painful.

By Him that raised me to this *careful* height. *Shak.*

3. Exercising thoughtful oversight or making solicitous provision; — usually with *for* or *of*; as, *careful* of a child's welfare.
4. Taking care or heed; watchful; cautious; provident; not indifferent, heedless, or reckless; — often with *of, for*, or the infinitive; as, *careful* of money; *careful* to do right.
5. Marked by care; done or executed with care; as, he made a *careful* examination.
Syn. — Vigilant; gingerly, guarded, chary; heedful, advertent, thoughtful, considerate, prudent; exact, punctilious, scrupulous. — CAREFUL, CAUTIOUS, WARY, CIRCUMSPECT, DISCREET, METICULOUS. CAREFUL (cf. CARE) suggests watchfulness and solicitude, without necessary implication of danger to avoid; CAUTIOUS always implies some contingency against which one guards; as, "It was plain that the plan of operations had been *carefully* mapped out from the first, and that these men were *cautiously* advancing towards its accomplishment, as far as was safe at the moment" (*J. H. Newman*); "too generous to be *cautious*" (*id.*). WARY suggests, more strongly than *cautious*, suspicion of danger (esp. of trick or artifice) and alertness or vigilance; as, "a little field mouse, scratching *warily* from corn to corn, lest his enemies should spy him" (*Mary Wilkins*). CIRCUMSPECT rather implies attentive deliberation or habitual prudence, esp. in matters of peculiar delicacy or difficulty; as, "Let not his smoothing words bewitch your hearts; be wise and *circumspect*" (*Shak.*). DISCREET, as here compared (cf. *judicious*, under WISE), suggests esp. caution with respect to speech or conduct; as, "You are a *discreet* man, and I make no doubt can keep a secret" (*Irving*); "The sea is silent, the sea is *discreet*" (*Longfellow*). METICULOUS (cf. AFRAID) implies a timorous or finically scrupulous caution; as, "a teasing and *meticulous* minuteness of sentimental analysis" (*Saintsbury*). Cf. FRUGAL, SHREWD, WISE.
Ant. — See CARELESS, RASH, SLOVENLY.
— **care'ful·ly**, *adv.* — **care'ful·ness**, *n.*
care'less (kâr'lĕs; -lĭs; 119), *adj.* [AS. *cearlēas*.] **1.** **a** Free from care, anxiety, or solicitude. "*Careless* infancy." *Shak.* **b** Having no concern or interest; unconcerned; unmindful.

Careless their merits or their faults to scan. *Goldsmith.*

2. Not taking ordinary or proper care; negligent; heedless; inattentive; regardless.

My brother was too *careless* of his charge. *Shak.*

3. Not receiving or exhibiting care: **a** *Obs.* Not attended to or cared for. **b** Done, made, caused, or the like, without attention to rule or system; unstudied; spontaneous; as, a *careless* act or word. **c** Done, said, or caused, without due care; negligent; heedless; as, *careless* mistakes; *careless* work.
Syn. — Inconsiderate, thoughtless, unthinking, remiss, inadvertent. — CARELESS, HEEDLESS. CARELESS implies want of pains or thought; HEEDLESS, lack of attention; as, a *careless* piece of work; a *heedless* listener; one is *careless* of the consequences who is devoid of concern about them; one is *heedless* of the consequences who dismisses them wholly from consideration. Cf. RASH, SLOVENLY, NEGLIGENCE.

I have been always till now almost as *careless* of the world as a fly — my troubles were all of the imagination. *Keats.*

Discreetly *heedless*, thanks to her long association with nobleness in art, to the leaps and bounds of fashion. *H. James.*

Ant. — Prudent, watchful, cautious. See CAREFUL.
— **care'less·ly**, *adv.* — **care'less·ness**, *n.*
Care'less (kâr'lĕs; -lĭs; 119), *n.* In Sheridan's *School for Scandal*, a boon companion of Charles Surface.
care'less, *n.* Also **careless weed**. Any of several herbs of the genus *Amaranthus*, esp. *A. hybridus*, the pigweed.
‖**ca'rême'** (kȧ'râm'), *n.* [F.] Lent; the Lenten season.
ca·rene' (kȧ·rēn'), *n.* [ML. *carena*, corrupt. fr. *quarentena*. See QUARANTINE.] *Eccl.* A forty days' fast or indulgence. *Obs.*
car'ene (kăr'ēn), *n.* [From CARONE.] *Chem.* A liquid bicyclic terpene found in some turpentine oils and in the oil of an East Indian grass (*Cymbopogon iwarancusa*).
car'er (kâr'ẽr), *n.* One who cares.
ca·ress' (kȧ·rĕs'), *n.* [F. *caresse*, fr. *caresser*. See CARESS, *v.*] An act of endearment; any act or expression of affection; a fondling, or touching, with tenderness.

Wooed her with his soft *caresses*. *Longfellow.*
He exerted himself to win by indulgence and *caresses* the hearts of all who were under his command. *Macaulay.*

ca·ress', *v.*; CA·RESSED' (kȧ·rĕst') or, *chiefly poetic*, CA·REST'; CA·RESS'ING. [F. *caresser*, fr. It. *carezzare*, fr. *caro* dear, fr. L. *carus*. See CHARITY; cf. CHERISH.] *Transitive*: **1.** To treat with tokens of fondness, affection, or kindness. *Archaic.*
2. **a** To touch or stroke in a loving or endearing manner; to fondle. "The lady *caresses* the rough bloodhound." *Scott.* **b** To touch or affect as if with a caress; as, echoes that *caress* the ear.
—, *Intransitive*: To bestow caresses; to fondle.

The airs Of heaven with more *caressing* softness play. *Bryant.*

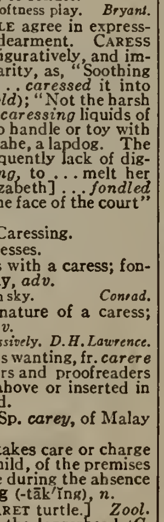
Syn. — Pet, coddle. — CARESS, FONDLE agree in expressing a manifestation of affection or endearment. CARESS suggests softness of touch, literally or figuratively, and implies tenderness, but not undue familiarity, as, "Soothing with a touch the wild thing's fright . . . *caressed* it into peace with light, kind palms" (*E. Arnold*); "Not the harsh staccato of Florence . . . but the silken *caressing* liquids of Siena" (*M. Hewlett*). To FONDLE is to handle or toy with the object of affection; as, to *fondle* a babe, a lapdog. The word implies doting fondness, and frequently lack of dignity; as, "flattering, amorous *fondling*, to . . . melt her guardless heart" (*Mickle*); "She [Elizabeth] . . . *fondled* her 'sweet Robin,' Lord Leicester, in the face of the court" (*J. R. Green*). Cf. COAX.
ca·res'sant (kȧ·rĕs'ănt), *adj.* [F.] Caressing.
ca·ress'er (kȧ·rĕs'ẽr), *n.* One who caresses.
ca·ress'ing, *adj.* Touching with or as with a caress; fondling. See CARESS, *v.* — **ca·ress'ing·ly**, *adv.*

The *caressing* blueness of an English sky. *Conrad.*

ca·res'sive (kȧ·rĕs'ĭv), *adj.* Of the nature of a caress; given to caresses. — **ca·res'sive·ly**, *adv.*

"Have this one [a dance] wi' me," he said *caressively*. *D. H. Lawrence.*

car'et (kăr'ĕt; kâr'-), *n.* [L. *caret* there is wanting, fr. *carere* to want.] A mark [∧] used by writers and proofreaders to indicate that something interlined above or inserted in the margin belongs in the place marked.
‖**ca'ret'** (kȧ'rĕ'; *E.* kăr'ĕt), *n.* [F., fr. Sp. *carey*, of Malay origin.] The hawksbill turtle.
care'tak'er (kâr'tāk'ẽr), *n.* One who takes care or charge of any place, person, or thing, as of a child, of the premises of an insolvent, or of an estate or house during the absence of the owner or tenant. — **care'tak'ing** (-tāk'ĭng), *n.*
Ca·ret'ta (kȧ·rĕt'ȧ), *n.* [NL. See CARET turtle.] *Zool.* A genus of marine turtles typified by the loggerhead (*C. caretta*). Syn. *Thalassochelys.*
Ca·ret'to·che·lyd'i·dae (kȧ·rĕt'ō·kē·lĭd'ĭ·dē), *n. pl.* [NL., fr. *Caretta* + Gr. *chelydros* a tortoise + *-idae*.] *Zool.* A family of pleurodiran fresh-water turtles embracing the single New Guinea species *Carettochelys insculpta*.
care'-tuned' (kâr'tūnd'), *adj.* Keyed or tuned to sorrow.
care'worn' (-wōrn'; 181), *adj.* Exhibiting the wasting effect of care; worn with care; as, a *careworn* look or face.
Ca'rex (kā'rĕks), *n.* [L., sedge.] *Bot.* **a** A genus of herbs of the sedge family (Cyperaceae), comprising over 1,000 species, of very wide distribution. They are generally known as sedges, although this name is often applied to other genera of the family, from which *Carex* is distinguished by having the seedlike achenes enclosed in a utricle called a *perigynium*. Many of the species yield coarse fiber, used in making matting. **b** [*not cap.*; *pl.* CARICES (kăr'ĭ·sēz).] A plant of this genus.

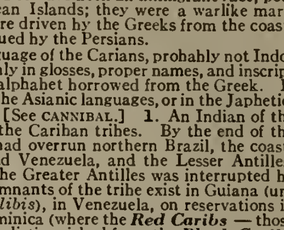


Carex (*C. riparia*). 1 Staminate and 2 Pistillate Spikes; 3 Perigynium.

Car'ey Act (kâr'ĭ). [After Joseph M. *Carey* (1845–1924), senator from Wyoming.] *U. S. Hist.* An act of Congress of Aug. 18, 1894, granting 1,000,000 acres of desert land in certain States to be irrigated and reclaimed by the State and disposed of to settlers in small tracts.
car'faro' (kär'fâr'), *n.* Fare for carrying a passenger on a car, esp. a streetcar; hence, a very small sum of money.
car'fax (kär'făks), *n.* [OF. *carreforc*. See CARFOUR.] A place where four or more roads meet; — now chiefly in place names. *Eng.*
car ferry. A vessel of special design for the transportation of railway trains by water.
car float. A barge used as a car ferry. See FLOTAGE.
car'four (kär'fōr), *n.* [F. *carrefour*, fr. OF. *carrefor*, *carreforc*, fr. L. *quadrifurcus* having four forks. See QUADRATE; FORK. Cf. CARFAX.] A carfax. *Obs.*
car·fuf'fle (kẽr·fŭf''l), *n.* [E. dial. *car* left-handed, sinister + *fuffle* disorder.] Ruffle; agitation; disorder; flurry. *Scot.*
car·fuf'fle, *v. t.*; CAR·FUF'FLED (-'ld); CAR·FUF'FLING (-lĭng). To disorder; disarrange; ruffle. *Scot.*
‖**car'ga·dor'** (kär'gä·thōr'; 112), *n.*; *pl.* -DORES (-thō'rās). [Sp.] **a** A carrier or porter. **b** A stevedore.
Car'gile treat'ment (kär'gĭl). [After Charles H. *Cargile* (b. 1853), Am. surgeon.] *Surg.* A method of treating surgical wounds in which the so called **Cargile membrane**, made from the peritoneum of the ox, is used for packing and for preventing adhesions.
car'go (kär'gō), *n.*; *pl.* -GOES or -GOS (-gōz). [Sp. *cargo*, *carga*, burden, load, fr. *cargar* to load, charge. See CHARGE.] **1.** The lading or freight of a ship or other vessel; the goods, merchandise, or whatever is conveyed in a vessel or boat; load; freight. The term *cargo*, in law, is usually applied to goods only, and not to live animals or persons.
2. See WEIGHT, *Table*.
Syn. — See FREIGHT.
☞ PHRASES are:

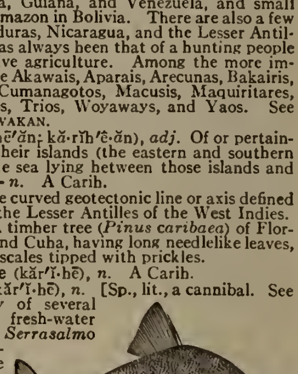
cargo boat	cargo clerk	cargo ship
cargo carrier	cargo lighter	cargo worker

car'go (kär'gō). [Cf. Sp. *cargo, carga*, load, charge.] A word of uncertain meaning, used in contempt or imprecation. *Obs.*
cargo coal. Coal transported as cargo. See BUNKER COAL.
cargo liner. *Marine.* A liner which carries general cargo, exclusively. See 2d LINER, 5 a; GENERAL CARGO.
cargo mill. A sawmill with dockage facilities for direct loading on ships.
car'goose' (kär'go͞os'), *n.*; *pl.* -GEESE (-gēs'). [Perh. fr. Gael. *cīr*, Ir. *cīor* crest, comb; or cf. CARR.] The crested grebe. See GREBE.
car heater. A heater for an automobile. See HEATER.
car'house' (kär'hous'), *n.* A carbarn. *U. S.*
Car'i·a'mae (kăr'ĭ·ā'mē), *n. pl.* [NL., fr. *cariama*, misprint (Marcgraf, *Historia*; cf. MARCGRAVIA) for Tupi *çariama*. See SERIEMA.] *Zool.* A suborder of Gruiformes constituted by the seriemas.
Car'i·an (kâr'ĭ·ăn), *adj.* Of or pert. to Caria, in Asia Minor.
Car'i·an, *n.* **1.** A native or inhabitant of ancient Caria. The Carians are supposed to have been an immigrant race, possibly from the Aegean Islands; they were a warlike maritime people, but were driven by the Greeks from the coast, and were later subdued by the Persians.
2. The ancient language of the Carians, probably not Indo-European, known only in glosses, proper names, and inscriptions written in an alphabet borrowed from the Greek. It is often included in the Asianic languages, or in the Japhetic.
Car'ib (kăr'ĭb), *n.* [See CANNIBAL.] **1.** An Indian of the most important of the Cariban tribes. By the end of the 15th century they had overrun northern Brazil, the coastlands of Guiana and Venezuela, and the Lesser Antilles. Their conquest of the Greater Antilles was interrupted by the Spaniards. Remnants of the tribe exist in Guiana (under the name of *Galibis*), in Venezuela, on reservations in St. Vincent and Dominica (where the ***Red Caribs*** — those of pure blood — are distinguished from the ***Black Caribs*** who have intermingled with Negroes), and on the Caribbean coast of Honduras, Guatemala, and Nicaragua.
2. Loosely, any Cariban Indian, and sometimes, any Indian of Spanish America of a savage tribe. Cf. ARAWAK, *n.*
Car'ib (kăr'ĭb), *adj.* Cariban.
Car'ib·al (kăr'ĭ·băl), *adj.* Of or belonging to the Caribs.
Car'ib·an (-băn), *adj.* Pertaining to or designating an important linguistic family of South American Indians, comprising more than 50 tribes, and occupying a large area in Brazil, Colombia, Guiana, and Venezuela, and small areas south of the Amazon in Bolivia. There are also a few in Guatemala, Honduras, Nicaragua, and the Lesser Antilles. Their culture has always been that of a hunting people practicing a primitive agriculture. Among the more important tribes are the Akawais, Aparais, Arecunas, Bakairis, Caribs, Chaymas, Cumanagotos, Macusis, Maquiritares, Oyanas, Tamanacos, Trios, Woyaways, and Yaos. See CARIB, *n.*; cf. ARAWAKAN.
Car'ib·be'an (kăr'ĭ·bē'ăn; kȧ·rĭb'ē·ăn), *adj.* Of or pertaining to the Caribs, their islands (the eastern and southern West Indies), or the sea lying between those islands and Central America. — *n.* A Carib.
Caribbean arc. The curved geotectonic line or axis defined by the positions of the Lesser Antilles of the West Indies.
Caribbean pine. A timber tree (*Pinus caribaea*) of Florida, the Bahamas, and Cuba, having long needlelike leaves, and cones with the scales tipped with prickles.
Car'ib·bee, Car'i·bee (kăr'ĭ·bē), *n.* A Carib.
‖**ca·ri'be** (kä·rē'bā; kăr'ĭ·bē), *n.* [Sp., lit., a cannibal. See CANNIBAL.] Any of several South American fresh-water fishes of the genus *Serrasalmo* and family Characinidae, remarkable for their voracity. Though mostly of small size, they often attack men and large animals that enter the water, inflicting dangerous wounds.



Caribe (*Serrasalmo scapularis*).

Ca'ri·bi'si (kä'rē·bē'sē), *n.* An Indian of a Cariban tribe dwelling in northwestern British Guiana.
car'i·bou (kăr'ĭ·bo͞o), *n. sing. & pl.* [Can. F., of Algonquian origin; cf. Micmac *khalibu*, lit., pawer or scratcher, Quinnipiac *maccarib*. Cf. MACARIB.] Any of several species or varieties of reindeer found in northern North America and Greenland. The larger forms inhabit wooded localities and are distinguished as ***woodland caribou***. The best known of these (*Rangifer caribou*) was formerly found in many of the northern States, but has been exterminated in most of them. The smaller forms inhabiting open country are called *Barren Ground caribou*. See BARREN GROUND CARIBOU.


Caribou (*Rangifer caribou*). (1/60)

Car'i·bou-eat'er, *n.* An Indian of a Tinne tribe living between Lake Athabaska and the Great Slave Lake and Hudson Bay. See CHIPEWYAN.
Caribou Eskimo. An Eskimo of one of the tribes living in the Barren Grounds, who live chiefly on caribou.
caribou moss. Reindeer lichen.
Car'i·ca (kăr'ĭ·kȧ), *n.* [L., a kind of dried fig, prop. fem. of

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ca·reend' Careened. *Ref. Sp.*
ca·reerd' Careered. *Ref. Sp.*
ca·reer'ing, *pres. part. & verbal n.* of CAREER. **ca·reer'ing·ly**, *adv.*
care'fox † CARFAX.
Ca'reh him (kā'rĕ-him). *D. Bib.*
caraine † CARRION.
Careless Gallio. See GALLIO.
caren. † CARRION, CAREEN.
car'en·tane (kăr'ĕn·tān), *n.* [Cf. QUARANTINE.] A forty days' indulgence. *Obs.*
‖**ca'rent qui'a va'te sa'cro.** [L.] Because they lack a devoted poet (they are forgotten).
ca·rest' (kȧ·rĕst'), *past part.* of CARESS.
carf (kărf; kärf), *n.* [Cf. Icel. CARVE.] Dial. var. of KERF.
car'ful, *adj.* See -FUL.
car'ga (kär'gä), *n.* [Sp.] **a** See MEASURE, *Table*. **b** See WEIGHT, *Table*.
car'ga·son, -zon (kär'gȧ·sŏn), *n.* [F. *cargaison*.] A cargo. *Obs.*
car'geese', *n.*, *pl.* of CARGOOSE.
Ca'ri·a (kā'rĭ·ȧ; 79). *Bib.*
Ca·ri'a·cus (kȧ·rī'ȧ·kŭs), *n.* [NL., fr. Tupi *cariacu*.] *Zool.* Syn. of ODOCOILEUS. — **ca·ri'a·cine** (-sīn; -sĭn), *adj.*
cariage. † CARRIAGE.
ça'ri·a'ma (sä'rē·ä'mȧ), *n.* = SERIEMA.
carian. † CARRION.
Ca'ri·ath (kā'rĭ·ăth; 79). *D. Bib.*
Ca'ri·a·tha'im (-ȧ·thā'ĭm). *D. Bib.*
Ca'ri·ath'i·a'rim (kā'rĭ·ăth'ĭ·ā'rĭm). *D. Bib.*
Ca·ri'bi (kȧ·rē'bē), *n.* = GALIBI.
Ca·rib'i·an (kȧ·rĭb'ĭ·ăn). Var. of CARIBAN.

Webster's New International Dictionary, *Second Edition*

A Composite Page Illustrating the Treatment of Synonyms and Antonyms

lib'er·al (lĭb'ẽr·ăl), *adj.* [OF., fr. L. *liberalis*, fr. *liber* free; akin to Gr. *eleutheros* free, AS. *lēod* a people, *lēodan* to grow, Goth. *liudan*, G. *leute* people, Skr. *rodhati*, *rohati*, it rises, grows; basic idea: to grow up. Cf. DELIVER, LIBERTY, LIVERY.] **1.** Befitting, or worthy of, a man of free birth; free; not servile; not restricted; as, a *liberal* manner. **2.** Bestowing in a large and noble way, as a freeman; generous; bounteous; openhanded; as, a *liberal* giver.
3. **a** Bestowed in a large way; hence, abundant; bountiful; ample; large; as, a *liberal* gift; a *liberal* quantity; a *liberal* offer. **b** Hence, specif., large; — of the body and its parts; as, a *liberal* lip.
4. Free from restraint; uncontrolled; unchecked; hence, regardless of legal or moral restraints; licentious. *Archaic.* "Most like a *liberal* villain." *Shak.*
5. Not strict or rigorous; not confined or restricted to the literal sense; free; as, a *liberal* translation of a classic.
6. Not narrow or contracted in mind; broad-minded.
7. Not bound by authority, orthodox tenets, or established forms in political or religious philosophy; independent in opinion; not conservative; often, specif., having tendency toward democratic or republican, as distinguished from monarchical or aristocratic, forms; as, *liberal* thinkers, *liberal* Christians; *liberal* ideas in politics; — hence [*cap.*], adopted as the designation of political parties in some countries, notably England. In England the designation of *Liberal* was first applied in the first quarter of the 19th century to the more radical element in the *Whig* party, with an implication of reproach, but soon supplanted *Whig* both as adjective and noun, as, about 1830, *Conservative* supplanted *Tory*, the earlier names being reserved for the conservative minority in each party. See CONSERVATIVE, *adj.*, 4; RADICAL, *adj.*, 3; TORY, 3; UNIONIST, 2 c; WHIG, 2.
Syn. — LIBERAL, GENEROUS, BOUNTIFUL, MUNIFICENT. As applied to giving, LIBERAL suggests freedom or abundance, GENEROUS emphasizes the idea of warmhearted readiness to give; as, a *liberal* (cf. a *generous*) provision for one's needs; a *liberal* offer; a *generous* portion. *Liberal* also suggests freedom from prejudice or narrowness; *generous*, magnanimity, esp. in judging; as, *liberal* opinions; *liberal* in one's religious views; a *generous* opponent; *generous* in praise of a rival. BOUNTIFUL suggests abounding liberality; MUNIFICENT, splendid or princely generosity; as, "a worthy gentleman . . . as *bountiful* as mines of India" (*Shak.*); "Lady *Bountiful*" (*Farquhar*); a *munificent* endowment. Cf. PLENTIFUL, PROFUSE.
Ant. — Stingy, grudging, mean; narrow, bigoted. See PARSIMONIOUS.

par'si·mo'ni·ous (pär'sĭ·mō'nĭ·ŭs; 159), *adj.* [See PARSIMONY.] Exhibiting parsimony; sparing in expenditure of money; frugal to excess; penurious; niggardly; stingy; meager; mean; as, be is rich but *parsimonious*; *parsimonious* fare.

A prodigal king is nearer a tyrant than a *parsimonious*. *Bacon.*

Syn. — Sparing, illiberal, grasping, mercenary, avaricious, covetous, sordid. — PARSIMONIOUS, PENURIOUS, MISERLY, NIGGARDLY, STINGY, CLOSE. One is PARSIMONIOUS who is sparing or frugal, commonly to an excessive degree; one is PENURIOUS who is meanly parsimonious; as, "Having been a spendthrift all his life, he had now become strictly *parsimonious* . . . and . . . devoted every energy of his mind to save shillings and pence" (*Trollope*); "A grudging master, a *penurious* niggard of his wealth" (*Milton*). One is MISERLY who is sordidly avaricious; one is NIGGARDLY or STINGY (the more common term) who is grudging or closefisted esp. in expending; as, "Her expenditure was *parsimonious* and even *miserly*" (*J. R. Green*); "As poor and *niggardly* as it would be to set down no more meat than your company will be sure to eat up" (*Swift*); "If I want anything, he says that it cannot be afforded. I never thought before that he was *stingy*, but I am sure now that he must be a miser at heart" (*Trollope*). CLOSE is colloq. for stingy (cf. NEAR). Cf. GREEDY, COVETOUS, FRUGAL, SCANTY, CONTEMPTIBLE, POVERTY.
Ant. — Openhanded; extravagant. See LIBERAL.

in·trin'sic (ĭn·trĭn'sĭk), *adj.* [F. *intrinsèque*, fr. ML. *intrinsecus*, fr. L. *intrinsecus*, adv., inward, on the inside. See INTER-; EXTRINSIC.] **1.** Within. *Obs.*
2. Inner or internal; hence, secret, private, or intimate.
3. Belonging to the inmost constitution or essential nature of a thing; in real character; essential; inherent; not merely apparent or accidental; — opposed to *extrinsic*; as, the *intrinsic* value of gold; the *intrinsic* merit of a deed.
4. *Anat.* Included wholly within an organ or limb, as certain groups of muscles; — opposed to *extrinsic*.
5. *Math.* See CYCLOTOMIC DIVISOR.
Syn. — Inborn, inbred, native, natural, inseparable; real, genuine, true; necessary, indispensable. — INTRINSIC, INHERENT, ESSENTIAL. That is INTRINSIC (opposed to *extrinsic*) which belongs to or is a property of a thing considered in itself, as opposed to what is accidental or adventitious; that is INHERENT which subsists as a permanent or inalienable element or quality of a thing; that is ESSENTIAL (cf. NEEDFUL) which belongs to the very nature of a thing or which is indispensable to its being what it is; as, "Symbols . . . have both an extrinsic and *intrinsic* value. . . . Coats of arms, military banners everywhere, and generally all national or other sectarian costumes and customs . . . have no *intrinsic*, necessary divineness, or even worth; but have acquired an extrinsic one" (*Carlyle*); "When the subject has no *intrinsic* dignity, it must necessarily owe its attractions to artificial embellishments" (*Johnson*); "certain *inherent* and indestructible qualities of the human mind" (*Wordsworth*); "great *inherent* energy" (*Hazlitt*); "A tragic destiny . . . is *inherent* in the very conditions of the tale" (*Sidney Colvin*); "If each system in gradation roll alike *essential* to the amazing whole, the least confusion but in one, not all that system only, but the whole, must fall" (*Pope*). See RADICAL, INNATE, REAL.
Ant. — Accidental, adventitious, apparent, acquired. See EXTRINSIC.

there'fore (thâr'fōr; 181; *formerly, as in senses* 1 & 2, there·fore'), *adv.* [ME. *therfore*. See THERE; FORE, *prep.*, FOR. Cf. THEREFOR.] **1.** Therefor. *Obs.*
2. On that point; in that respect. *Rare.* *Chaucer.*
3. For that reason, referring to something previously stated; because of that; on that ground; to that end; consequently; hence; as, they lost the wager; *therefore* they must pay.

He blushes; *therefore* he is guilty. *Spectator.*

Syn. — THEREFORE, WHEREFORE, CONSEQUENTLY, ACCORDINGLY, SO, THEN agree in denoting sequence, usually causal; they differ in the closeness of connection or degree of formality implied. THEREFORE and WHEREFORE are the most formal, and are employed esp. in strict reasoning; CONSEQUENTLY denotes close causal or logical sequence; ACCORDINGLY is freer and less formal; SO and THEN are lighter, and do not necessarily imply a close inference. Cf. BECAUSE.

Synonyms and Antonyms

A feature of the New International was the series of articles in which careful discriminations were made among groups of words closely related in meaning — discriminations not only based upon usage but plentifully illustrated and supported by quotations chosen from standard English authors, including the great letter writers. This veritable storehouse of information on good and exact usage, an indispensable aid to the mastery of the language, has been retained in the *Second Edition.*

Supplementing these articles are word-defining lists of nearly synonymous terms — lists that are both fuller and more numerous than in the New International.

Full lists of Antonyms have been added. Word-finding lists are provided, often with reference to one of the discriminating articles mentioned above, so that the dictionary consultant may distinguish among antonyms as clearly as among synonyms.

syn'o·nym (sĭn'ō·nĭm), *n.* [LL. *synonyma*, pl. of *synonymum*, fr. Gr. *synōnymon*. See SYNONYMOUS.] **1.** One of two or more words of the same language having the same or nearly the same essential meaning. Words that are *synonyms* of one another may be: (1) Words of like implication throughout, their difference appearing only in certain collocations; thus we conventionally say "*unlikely* to happen," but not "*improbable* to happen." Such *synonyms* in English commonly arise from the duplication of a given sense by words from Anglo-Saxon and from Romance. (2) Words of like implication only in one of two or more senses. Thus *dull* is a *synonym* of *stupid* as said of a pupil, but not as said of a knife. (3) Words of similar generic meaning which, in ordinary use, have specific and different applications, as *author*, *producer*, and *inventor*. (4) Words of nearly identical meaning which, because of their connotations or literary associations, do not serve equally well in any context, as *kill*, *slay*, and *murder*. A thorough analysis of synonyms will in most cases show that the words actually have clearly distinguishable differences of meaning, and are interchangeable only when the differences in meaning do not affect the speaker's intention in a given context. Thus to *secure* and *attain* (an object) are synonyms because their sense "comes to the same thing," although they come to it, etymologically, by way of different metaphors.
2. A name that suggests another through real or fancied association; a symbolical or figurative name; a metonym.

His name has thus become, throughout all civilized countries, a *synonym* for probity and philanthropy. *Macaulay.*

3. One of two or more names for the same thing in different languages or localities; a heteronym.
4. *Bot. & Zool.* A systematic name, as of a species or genus, regarded as incorrectly applied, or as incorrect in form or spelling. It may formerly have been the accepted name, which was afterwards, however, rejected in favor of another, because of evidence of the priority of that other, or evidence establishing a more natural, genetic classification. See CLASSIFICATION, 3; NOMENCLATURE, 3.
Syn. — SYNONYM, ANTONYM, HOMONYM. SYNONYMS are words which express what is essentially the same idea, but which (commonly) differ from one another in some shade of meaning, in emphasis, or (esp.) in their connotations; ANTONYMS are terms of opposite meaning; HOMONYMS are words which, though entirely distinct in origin and meaning, are pronounced alike and sometimes spelled in the same way. Thus, *sharp* and *keen* are *synonyms*; *sharp* and *dull* are *antonyms*; *beaver* (the animal) and *beaver* (the lower part of a helmet) are *homonyms*.

an'to·nym (ăn'tō·nĭm), *n.* [Gr. *antōnymia* a word used in place of another, fr. *anti* + *onoma*, *onyma*, word.] A word of opposite meaning; as, white, good, are *antonyms* of black, bad; — contr. with *synonym*. — **an·ton'y·mous** (ăn·tŏn'ĭ·mŭs), *adj.* — **an·ton'y·my** (-mĭ), *n.*
Syn. — See SYNONYM.

hom'o·nym (hŏm'ō·nĭm; hō'mō-), *n.* Also **hom'o·nyme.** [F. and L.; F. *homonyme*, fr. L. *homonymus*. See HOMONYMOUS.] **1.** A word having the same pronunciation as another, but differing from it in origin, meaning, and, often, in spelling, as *bare* and *bear*.
2. One of two or more having the same name; a namesake.
3. *Biol.* A preoccupied generic or specific name, rejected on the basis of the law of priority, which requires the use of the oldest published available name.
Syn. — See SYNONYM.

peace'a·ble (pēs'ȧ·b'l), *adj.* [ME. *peisible*, fr. OF. *paisible*. See PEACE.] Being in or at peace; free from, or not disposed to, war, disorder, or excitement; not quarrelsome; quiet in behavior, speech, condition, or the like; peaceful.
Syn. — Tranquil, quiet, undisturbed, still. See PACIFIC.
Ant. — Contentious, quarrelsome. See IRASCIBLE.

dis·ci'ple (dĭ·sī'p'l), *n.* [ME. *disciple*, *deciple*, fr. OF. *disciple*, *deciple*, fr. L. *discipulus*, fr. *discere* to learn; cf. also AS. *discipul*, fr. L. See NOCILE; cf. DISCIPLINE.] One who receives instruction from another; a learner, esp. one who accepts the doctrines of his teacher and assists in spreading them; a follower; specif.: **a** A professed follower of Christ in his lifetime, esp. one of the twelve apostles or one of the seventy (seventy-two in the Vulgate). *Luke x. 1.* **b** An adherent of a school, as in art or philosophy; as, a *disciple* of Rubens or of Kant.
Syn. — DISCIPLE, PUPIL, SCHOLAR, STUDENT. DISCIPLE, through the influence of its Biblical sense, has ceased to be an exact synonym for *pupil* or *scholar*; it always implies personal adherence to the views or doctrines of one's master or teacher; as, a *disciple* of Rousseau; he was once a *pupil*, and always a *disciple*, of Kant. PUPIL suggests more of the teacher's personal care or oversight than SCHOLAR, which (as here compared) emphasizes the idea of instruction or tuition; as, an obedient *pupil*; a bright *scholar*. *Scholar* is also the technical term for the holder of an academic scholarship; as, the Rhodes *scholars* at Oxford. STUDENT, as here compared, is the general term for those in attendance at a higher institution of learning; as, the number of *students* in the college; a college *student*; *student* life. See FOLLOWER.

in·al'ien·a·ble (ĭn·āl'yĕn·ȧ·b'l; -ā'lĭ·ĕn-), *adj.* [*in-* not + *alienable*.] Incapable of being alienated, surrendered, or transferred.
Syn. — INALIENABLE, INDEFEASIBLE. That is INDEFEASIBLE which one cannot be deprived of without one's consent; that is INALIENABLE which one cannot give away or dispose of even if one wishes. Thus, one has an *indefeasible* title to the house which one owns absolutely, but this right may be alienated to another; under the Constitution of the United States, personal liberty, freedom of speech, etc., are *inalienable* rights. But in ordinary usage the words are often employed without clear distinction.

vin·dic'tive (vĭn·dĭk'tĭv), *adj.* [For *vindicative*, confused with L. *vindicta* revenge, punishment, fr. *vindicare* to vindicate. See VINDICATE; cf. VINDICATIVE.] **1.** Disposed to revenge; prompted or characterized by revenge; retaliatory; as, a *vindictive* spirit, punishment, man.
2. Punitive; retributive. *Archaic.*
Syn. — VINDICTIVE, REVENGEFUL are often interchangeable; but REVENGEFUL is commonly the stronger term; as, "There was nothing *vindictive* in his nature; but, if revenge came his way, it might as well be good" (*Stevenson*); "Read the cardinal's malice and his potency together . . . You know his nature, that he's *revengeful*, and I know his sword hath a sharp edge" (*Shak.*). Cf. AVENGE, REQUITAL.
Ant. — Placable, forgiving, magnanimous, generous.

re·quit'al (rē·kwīt'ăl; -'l), *n.* [From REQUITE.] **1.** Act of requiting or fact of being requited; as, to suffer with no hope of *requital*.
2. That which requites; something given in return, compensation, or retaliation; recompense, reward, or retribution; as, to seek *requital* for his losses; a poor *requital* for his self-sacrifice.
Syn. — REQUITAL, RETALIATION, REPRISAL, REVENGE, VENGEANCE, RETRIBUTION. REQUITAL, as here compared (see REPARATION), denotes a return of any sort for injuries received; RETALIATION implies more specifically a rendering of evil for evil; REPRISAL is applied esp. to retaliation in warfare, whether by forcible seizure of property or by the infliction of injuries similar to those received. REVENGE is retaliation esp. for personal wrong or injury, and usually implies resentment, spite, or malice; VENGEANCE is sometimes used of passionate revenge, but more frequently implies stern or righteous indignation, and often suggests an avenging of others' wrongs; as, "A man that studieth *revenge* keeps his own wounds green" (*Bacon*); "*Vengeance* is mine, I will repay, saith the Lord" (*Rom.* xii. 19). RETRIBUTION is condign punishment; as, "Vice received her *retribution* due" (*Cowper*). Cf. AVENGE, VINDICTIVE.

in'fi·del, *n.* **1.** In respect of a given religion, one who is an unbeliever; a disbeliever; esp.: **a** A non-Christian or one opposing the truth or authoritativeness of the Christian religion. **b** A non-Mohammedan; a Kaffir.
2. One who does not believe (in something understood or specified); as, an *infidel* as regards spirit writings.
3. An unfaithful person. *Obs.*
Syn. — INFIDEL, FREETHINKER, SKEPTIC, AGNOSTIC, UNBELIEVER, ATHEIST, DEIST. INFIDEL, in modern popular usage (for other senses see defs.), is a term of reproach for one who avowedly denies the tenets of Christianity and the truth of the Scriptures. FREETHINKER varies in connotation with the point of view, implying warranted freedom of thought or pernicious license of opinion, according as the name is voluntarily assumed or is applied in reproach. SKEPTIC, as here compared, emphasizes the suggestion of doubt; AGNOSTIC, that of suspended judgment. UNBELIEVER (cf. UNBELIEF) is commonly opposed to *believer* (in its somewhat esoteric sense), and is virtually equivalent to *disbeliever*; it is a term of less opprobrium than *infidel*, and suggests more a personal, less a purely intellectual, attitude towards Christianity than *skeptic*, *agnostic*, or *freethinker*. An ATHEIST is one who denies the existence of God. DEIST, in earlier usage often synonymous with *infidel*, is now used only in the sense of an adherent of deism (which see). Cf. IRRELIGIOUS.

ca·pa'cious (kȧ·pā'shŭs), *adj.* [L. *capax*, *-acis*, fr. *capere* to take. See HEAVE; cf. CABBAGE to pilfer.] **1.** Able to take in or contain; — with *of* or *to* (and inf.). *Obs.*
2. Able to contain much; large; roomy; spacious; ample; as, a *capacious* vessel, room, bay, or harbor.

In the *capacious* recesses of his mind. *Bancroft.*

3. Qualified, disposed, or fitted for receiving; — with *of*. *Archaic.* "*Capacious* of renown." *Mrs. Browning.*
Syn. — Full, extensive, wide, broad, considerable. — CAPACIOUS, SPACIOUS, AMPLE, GOODLY agree in the idea of largeness. CAPACIOUS stresses ability to hold much; as, *capacious* pockets; a *capacious* cupboard. It has frequently a more or less humorous connotation; as, "Gradually had the *capacious* chin encroached upon the borders of the white cravat" (*Dickens*). SPACIOUS implies roominess, wide extent, breadth of sweep, or (figuratively) the absence of trammels or limitations; as, "the whole interior . . . a dim, *spacious*, fragrant place, afloat with golden lights" (*W. Pater*); "Fielding lived when days were longer . . . when summer afternoons were *spacious*" (*G. Eliot*). AMPLE implies sufficiency to meet all demands; it frequently connotes fullness or completeness; as, "the fortune . . . *ample* enough to have supported the expense" (*Clarendon*); "More pellucid streams, an *ampler* ether, a diviner air" (*Wordsworth*). GOODLY adds to the idea of considerable size the implication (sometimes humorous) of comeliness or excellence; as, "Ancient sirloin . . . a joint of *goodly* presence" (*Irving*). Cf. PLENTIFUL, RICH, GREAT.
— **ca·pa'cious·ly**, *adv.* — **ca·pa'cious·ness**, *n.*

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A Composite Page of Terms in Grammar, Rhetoric, and Punctuation

ad'verb (ăd'vûrb), *n.* [F. *adverbe*, fr. L. *adverbium*, fr. *ad* to + *verbum* word, verb; — a trans. of Gr. *epirrhēma* adverb, lit., that which is said afterwards.] *Gram.* A qualifier of a verb or of another qualifier, whether adjective, adverb, or qualifying phrase or clause, or of verbal nouns and nouns expressing action or state. Adverbs usually have a general meaning of manner or quality (*well* done; *sparklingly* white), position in place or time (sit *here; outward* bound; *soon* on the move), degree or number (*almost* blind; *intolerably* bad; *triply* bound; *secondly*), cause (be *therefore* believed), opposition (*yet* no one moved), affirmation or denial (*certainly; no; possibly*). The greater number of English adverbs are formed by the addition to adjectives and participles, and a few nouns, of the suffix *-ly* (*highly; pressingly; purposely*), many by the use of the suffixes *-ward, -wards, -wise* (homeward; *upwards*; clock*wise*); adverbs are in some cases formed by means of prepositions used as prefixes (afresh; beneath; aboveboard; perhaps; tonight); some are derivatives or imitations of old genitives (*needs; always; eftsoons*); many are identical in form with adjectives (*little; fain; sheer*. See FLAT, *adj.*, 11). Some adverbs take a change of form for comparison (soon, sooner, soon*est*; early, earlier, earli*est*). Though the most characteristic uses of adverbs are as qualifiers of adjuncts and verbs, many words usually adverbs may take adjunct constructions, esp. with nouns expressive of action or attribute (the view *seawards*), and likewise words usually prepositions (with the exception of *for, from, of, till, with*) often take adverbial uses (his father came *between*). Words usually adverbs appearing in noun and adjective uses have been specially designated as *nominal adverbs* and *adherent adverbs*. See NOMINAL, ADHERENT, ADVERBIAL, SUBJUNCT ADJECTIVE, PART OF SPEECH.

adjective equivalent. *Gram.* A word (not otherwise an adjective) or a word group taking a construction which is ordinarily taken by an adjective. It may be an adherent noun or gerund (*cannon* foundry, *walking* stick), a genitive or case phrase (*Burns's* works, the works *of Burns*), an appositive (the hunter, an old *Indian*), a clause (the woman *who is wise*).

collective noun. *Gram.* A noun naming a collection or aggregate of individuals by a singular form (*assembly, army, jury*). When the designated collection is thought of as a whole, the noun takes a singular verb; when its component individuals are in mind, it may take a plural verb, and is then sometimes called a *noun of multitude*. Thus, "the majority *decides* it," but "the majority *were* slaves."

ob'ject (ŏb'jĕkt; -jĭkt; 119), *n.* [L. *objectus*, past part., neut. *objectum*, a thing thrown or put before. See OBJECT, *v.*]
6. *Gram.* **a** A noun or noun equivalent denoting in verb constructions that on or toward which the action of a verb is directed either actually or as conceived (I struck the *ball*; I saw *what had happened*). Transitive constructions of the verb give rise to several distinctions among object words; thus: the ***direct object***, denoting that which is immediately acted on; — in Latin taking the accusative (*gratias* ago, I give *thanks*); the ***indirect object***, denoting that which the action affects less immediately or indispensably; — in Latin taking the dative (*tibi* gratias ago, I give *you* thanks; throw *John* the ball); the ***cognate accusative*** or ***object***, an object word which nearly or quite repeats the idea of the governing verb, the latter being otherwise intransitive (eam *vitam* vivere, to live that *life*); the ***secondary object***, a complementary object after certain verbs that take also a direct object (mother taught me *French*; I asked teacher a *question*); the ***retained object***, preserving the object relation in the passive construction, where the verb in the active takes two object words, of which one becomes the subject of the passive (a book was given *me*; I was taught *French* by my mother). **b** A noun or noun equivalent felt as bearing to one of certain adjectives a relation analogous to that of object to verb (worth the *trouble*; like his *brother*). **c** A noun or noun equivalent in a prepositional phrase, where the preposition is (not very appropriately) felt as "governing" the noun.

verbal noun. *Gram.* A noun derived directly from a verb or verb stem and, in certain uses, partaking of the sense and constructions of a verb; in English, a noun in *-ing* meaning in general the act or process of doing something (a *crying* in the wilderness; by *stepping* carefully, he crossed; *choosing* is difficult); specif., an infinitive or gerund. Cf. -ING, GERUND.

restrictive clause. *Gram.* An adjective clause so closely attached to its noun as to be essential to the definiteness of the noun's meaning (the boy *who succeeded* had worked hard); — called also a *determinative* or *designative clause*. See NONRESTRICTIVE CLAUSE.

num'ber (nŭm'bẽr), *n.* [ME. *nombre, noumbre*, fr. OF. *nombre*, fr. L. *numerus*. See NIMBLE; cf. NUMERATE, NUMERO, NUMEROUS.]
c A certain indefinitely large aggregate, collection, or company, as of persons, not actually or accurately counted; a considerable number; many; as, grown to a *number*; — also *pl.* with intensive force; as, they arrived in *numbers*. ☞ When *number* is used collectively, it is regularly followed by the singular verb; as, an increasing *number* of patrons has forced me to enlarge the store; a limited *number of* cars is available. When *number* is used distributively, it is regularly followed by the plural verb; as, a *number* of people have already arrived; a *number* of accidents always occur on slippery pavements.

phrase (frāz), *n.* [F., fr. L. *phrasis* diction, phraseology, fr. Gr. *phrasis*, fr. *phrazein* to tell, indicate.]
6 *Gram.* Any group of two or more words that form a sense unit, either expressing a thought fragmentarily without a complete predication (*Good for you!*) or with a weakened form of predication (*God willing*), or as a sentence element not containing a predication but having the force of a single part of speech (the gem *could have been found* in the dark). The words forming a phrase may bear to one another any of three different kinds of relation; namely, the modifying relation (*faithful dog, noun clause*), the additive or multiple relation (*dogs and cats*), and the "composite" relation (*might have been found*). The chief types of phrases are ***prepositional phrase***, a word group made up of a preposition governing a substantive; ***participial, infinitive***, or ***gerund, phrase***, a word group made up of a participle, infinitive, or gerund, and its qualifiers and objects; ***verb phrase***, a word group made up of an auxiliary verb and one or more verbals. According to their syntactical relation phrases are designated as *noun, adjective, appositive, verbal, adverbial, conjunctive*, or *absolute*. Cf. CLAUSE.

Grammar

When you went to school and studied grammar, you may have been skeptical about the future use of what you learned. Now you realize the value of good, sound training in this fundamental knowledge.

In this Dictionary are full, clear statements about the questions in grammar that count: the comparison of adjectives (see *compare*); the use of the *semicolon*, and of the *hyphen;* the types of phrases (see *phrase*); the *parts of speech*, with admirable definitions (see *adverb*); the formation of plurals (see *plural*, on following pages).

part of speech. *Gram.* One of the classes of words (namely, noun, adjective, pronoun, verb, adverb, preposition, conjunction, and interjection) distinguished according to the kind of idea denoted and the normal function performed in the sentence; also, a word belonging to a particular one of these classes. Historically, the distinction of parts of speech began in the study of inflected speech, where a variation of word form may mark the meaning of a word as a sense unit by itself as well as its function in the sentence. Here the part-of-speech distinction is a lexical or dictionary distinction quite as much as a grammatical one. In English grammar, words of variable form appear as typical parts of speech where the word form takes the function in the sentence that is expected of it (the *man gives* thanks) and as untypical parts of speech where the word form takes an unexpected function (*men* milliners; the joint has no *give*). Words of fixed form are often unstable parts of speech, depending solely on their function in one sentence or another; for example, *after* may be adverb, preposition, and conjunction (Jill came tumbling *after*; Jill came tumbling *after* Jack; Jill came tumbling *after* Jack had tumbled). As a result of the present attitude of grammarians that function and relation to sentence structure are the valuable features to emphasize in discussing words in the English sentence, many grammatical terms, such as the parts of speech, are being made to do double duty, both as representing the stress of historical and classical grammar upon meaning and inflection and as representing the newer functional emphasis, in order to meet the needs until an adequate set of functional terms gains general acceptance (cf. ADHERENT, NOMINAL, SUBJUNCT); likewise in classification many words may be assigned according to form or meaning to one part of speech or according to function to another part of speech (*about* may be regarded as adverb or adjective in, he is *about* again after his sickness).

ple'o·nasm (plē'ō·năz'm), *n.* [LL. *pleonasmus*, fr. Gr. *pleonasmos*, fr. *pleonazein* to be more than enough, to abound, fr. *pleon*, neut. of *pleōn, pleiōn*, more, compar. of *polys* much. See FULL; cf. POLY-, PLUS.] **1.** *Gram. & Rhet.* Redundancy or fullness of language in speaking or writing; the use of more words than are necessary to express the bare idea (I saw it *with my own eyes*; the eye, too, *it* looks out); also, a case of this, or the redundant or unnecessary word or expression.

en·clit'ic (ĕn·klĭt'ĭk), *adj.* [LL. *encliticus*, fr. Gr. *enklitikos*, fr. *enklinein* to incline, fr. *en* in + *klinein* to bend. See IN; LEAN, *v.*] **1.** *Gram.* Leaning or dependent (with reference to accent); — used specif.: **a** In *Gr. Gram.*, of a word which, losing its own independent accent, is attached in pronunciation to a preceding word, in which it usually causes a secondary accent to be laid on the final syllable (*te* in *anthrōpoi te*). **b** In *Lat. Gram.*, of a word, as the particles *-que, -ne, -ve, -ce*, analogously dependent upon a preceding word. In Latin an enclitic word caused certain accentual changes in the preceding word, the syllable preceding the enclitics *-que, -ne, -ve*, and *-ce* always taking an accent, either primary or secondary (*ho'mi·nes, ho'mi·nes'que; vi'des, vi·des'que*). **c** Of words in other languages when in pronunciation they are treated as forming a part of the preceding word (*thee* in English *prithee* that is, *pray thee*; *not* in English *can'not*).

ad'noun' (ăd'noun'), *n.* [*ad-* + *noun*.] *Gram.* An adjective, specif. one used substantively.

com·pare' (kŏm·pâr'), *v.*; COM·PARED' (-pârd'); COM·PAR'ING (-pâr'ĭng). [F. *comparer*, fr. L. *comparare*. See COM-; PEER an equal. Cf. COMPEER.]
3. *Gram.* To inflect according to the degrees of comparison; to state the positive, comparative, and superlative forms of. Most adjectives of one syllable, those of two syllables ending in *-er, -le, -ow*, or *-y* after a consonant, many adjectives of two syllables with stress on the second, and common adverbs that are identical in form with the adjectives, are usually *compared* by affixing "-er" and "-est" to the positive form (dirty, dirti*er*, dirti*est*). Other adjectives of more than one syllable and most adverbs are usually *compared* by using "more" and "most" before the positive (agile, *more* agile, *most* agile). Some adjectives forming a comparative only with "more," esp. those ending in *-able, -ed, -ful, -id, -ing*, admit of a superlative in "-est." The choice between the two methods is largely a matter of euphony, rhythm, and rhetorical effectiveness, except that comparison with "more" and "most" is preferred in the literary style and requisite with certain exclusively literary words, whereas the colloquial style prefers terminational comparison. Such compound adjectives as *kindhearted, high minded* take "-er" and "-est" on the first element when this keeps a distinct, literal sense and is commonly so compared as a separate adjunct (a kinder-hearted aunt); otherwise they take "more" and "most" (a *more* high minded policy). Double comparatives were common among Elizabethan writers and for some time later (*more brighter; more dearer*). Inverted comparison is often made by the use of "less" and "least."

func'tion (fŭngk'shŭn), *n.*
7. *Gram.* **a** Syntactic relation; as, "round" has a qualifying *function* in "round eyes." **b** A feature of meaning distinguished as characteristic of a type of word; as, number is a *function* of noun senses; tense, of verb senses.

rank (răngk), *n.* [OF. *ranc*, var. of *renc* (F. *rang*), of Teut. origin; cf. OHG. *hring* a circle, a circular row, G. *ring*; cf. ME. *renk, reng*, fr. OF. *renc*. See RING; cf. RANGE, *n.* & *v.*]
7. *Gram.* The standing of words in their mutual relations as qualified or qualifying terms. In recent grammars the three terms in such a phrase as *utterly dark night* are named respectively ***subjunct, adjunct***, and ***primary***, or ***kernel word***, designating the three functional ranks. These terms may, without changing rank, take alternative part-of-speech forms (cf. night of utter darkness, in which *utter* is subject and *of darkness* adjunct) or be replaced by phrase or clause equivalents (a night *which was dark*; a night darker *than I expected*). Jespersen uses *adnex* and *subnex* as names for ranks in word groups where the terms show predicative relations. See NEXUS, PRIMARY.

ad·her'ent (-ĕnt), *adj.* [F. *adhérent*, fr. L. *adhaerens, -entis*, pres. part.]
4. *Gram.* **a** Of an adjective or other adjunct, closely qualifying a noun and uniting with it to express a unit idea in the sentence (the *hungry* boy; a friend *of mine*); — distinguished from *appositive*. See APPOSITION, 2 **b**. **b** Of a word by form and normal use characteristically a noun or adverb, taking the construction of an adherent adjective in a given context (*loaf* sugar; his *thief* habits; the *down* train; an *upside-down* flight). The adherent noun often expresses a meaning distinct from that of the corresponding adjective (*form* letter; *formal* letter).

sub'junct (sŭb'jŭngkt), *n.* [See SUBJUNCTIVE.] *Gram.* A word of the third rank or order of subordination in the logical analysis of a sentence or phrase, esp. a qualifier of a qualifier (*very* cold water; water running *underground*); — a term used by Jespersen and others. Cf. ADJUNCT.

no'tion·al (-ăl; -'l), *adj.*
5. *Gram.* **a** Carrying a full meaning of its own; having descriptive value as presenting an idea of a thing, quality, etc.; — distinguished from *relational*. Thus *has* is *notional* in "he *has* luck," *relational*, in "he *has* gone." **b** Of or representing what exists or occurs in the world of things, as related to the world of actuality; — distinguished from *syntactic*; as, sex is a *notional*, gender a *syntactic*, category.

figure of speech. **a** *Rhet.* A form of expression other than plain and normal, usually one in sentence structure or diction, adopted for stylistic effect. Cf. TROPE. The chief figures of speech are:

allegory	exclamation	metonymy
anticlimax	hyperbole	onomatopoeia
antithesis	interrogation	personification
apostrophe	irony	simile
climax	litotes	synecdoche
euphemism	metaphor	vision

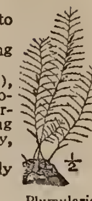
su·per'la·tive (sū·pûr'lȧ·tĭv), *adj.* [OF. *superlatif*, fr. LL. *superlativus*, fr. *superlatus* excessive, used as past part. of *superferre*, but from a different root. See TOLERATE.]
1. *Gram.* Expressing the highest or utmost (or, with *least*, the lowest) degree or amount of the quality, manner, etc., denoted by an adjective or an adverb. The superlative forms of many adjectives are used nominally to denote an unsurpassed point or condition of the specified quality (the river is at its *lowest*; at his *humanest* in this book). See 1st COMPARE, 3.
☞ In good usage, superlative adjectives and adverbs as best, worst, etc., precede numerals used in a collective sense and follow those used distributively; as, the best ten examples of architecture; the three *worst* instances in France, Italy, and Germany.

sem'i·co'lon (sĕm'ĭ·kō'lŏn), *n.* *Punctuation.* A point [;] used in printing and writing chiefly in a co-ordinating function between major sentence elements, separating them with more distinctness than comma or dash. Its most common specific uses are: (1) To mark antithesis between the ideas of major sentence divisions. (2) To effect transition between main clauses when lacking a connective and when succeeding each other in a swiftly moving passage. (3) Typically, to introduce a second main clause when the connective is *also, hence, nevertheless, therefore*, and the like. (4) To mark the larger breaks in a series, as in lists of books with pagination data, or of addresses, and of other types of items including commas. (5) To separate phrases and clauses containing commas; as, "As Caesar loved me, I weep for him; as he was fortunate, I rejoice at it." etc. (6) To separate clauses or phrases having common dependence; as, "There is tears for his love; joy for his fortune; honor for his valor; and death for his ambition." (7) To indicate apposition, often when the appositive group is elliptical for a main clause; — formerly always, now in variation with lighter points, before *namely, to wit, viz., as, i. e.*, and the like, introducing an example or enumeration of particulars.

hy'phen (hī'fĕn), *n.* [LL., fr. Gr. *hyphen*, fr. *hyph' hen* under one, into one, together, fr. *hypo* + *hen*, neut. of *heis* one; akin to L. *semper* always. See HYPO-; SAME.]
1. A punctuation point [-], usually one third the length of an em dash, used in printing and writing both for division and for compounding of words and word elements. **a** The hyphen is used for division chiefly: (1) at the end of a line which terminates with a syllable of a word, the remainder of which is carried to the next line; (2) between letters or syllables repeated (esp. in fiction) to give the effect of stuttering, sobbing, or halting expression (*S-s-sammy; ah-h-ah*); (3) with suspensive effect (*a six- or eight-cylindered motor*); (4) in many dictionaries, to show the syllables of words (*pro-ba-tion-a-ry*). **b** In compounding, the hyphen is used chiefly: (1) in impromptu compounds (*clop p-clomp; tick-tock*), in temporarily united combinations (*a kind of caught-in-the-act look*), and in compounds based upon a syntactical relation (*side-splitting; blue-black*); (2) in numerals spelled out (*twenty-five*); (3) in prepositional-phrase combinations (*mother-in-law*); (4) joined to a prefix for various special purposes, as for clearness; to distinguish a compound from a word of different meaning but otherwise identical (*re-formation*; cf. *reformation*); when otherwise a vowel would be confusingly doubled in combination (*intra-atomic; re-enter*); when the second element is capitalized or thought of as representing individuality or something official or institutional (*pre-Shakespearean; ex-governor; pro-cabinet*); or to indicate a form to be a prefix, suffix, or combining form (*pre-, -ation, -gram*). See COMPOUND, *n.*

plum'mer (plŭm'ẽr). Var. of PLUMBER. *Obs. exc. Ref. Sp.*
Plum'mer, Caleb. In Dickens's *The Cricket on the Hearth*, a poor, dispirited old toymaker, so devoted to his blind daughter that, to make her happy, he makes her believe him prosperous.
plum'met (plŭm'ĕt; -ĭt; 119), *n.* [ME. *plommet*, fr. OF. *plommet*, fr. *plom* lead (F. *plomb*). See PLUMB.] **1.** A plumb bob; also, a plumb rule; hence, figuratively, a test or criterion.
2. A sounding lead.
3. Something that weighs down or depresses; a weight. "The heaviest *plummet* of despair." *Wordsworth.*
4. *Obs.* **a** A lump, ball, or weight (of lead), as for a missile, at the end of a scourge, in a cestus, for a clock weight (hence, fig., actuating force), for an angler's sinker, etc. **b** *Scot.* The pommel of a sword. **c** A piece of lead formerly used to rule paper for writing.
plum'met, *v. t.* To sound or fathom; also, formerly, to let fall or draw (a line) by use of a plummet. — *v. i.* To fish with a plummet line.
plum'met·ed (-ĕd; -ĭd; 119), *adj.* Furnished with or as with plummets.
plum'met·less (-lĕs; -lĭs; 119), *adj.* Unfathomable.
plummet line. A line with a plummet.
plum'my (plŭm'ĭ), *adj.*; PLUM'MI·ER (-ĭ·ẽr); -MI·EST. [From PLUM.] Full of, consisting of, of the nature of, or like, plums; hence, *Slang*, very desirable; advantageous; rich.
plu'mose (ploo'mōs; *see* -OSE), *adj.* [L. *plumosus*, fr. *pluma* feather.] **1.** Having feathers or plumes; feathered.
2. Having hairs, or other parts, arranged along an axis like a feather; feathery, plumelike; as, a *plumose* stigma. — **plu·mos'i·ty** (ploo·mŏs'ĭ·tĭ; 242), *n.* — **plu'mose·ly,** *adv.* — **plu'mose·ness,** *n.*
plu'mous (ploo'mŭs; 242), *adj.* Plumose; feathery. *Rare.*
plump (plŭmp; *dial. also* ploomp), *n.* A cluster; group; flock; clump. *Archaic & Dial.* "A *plump* of ducks." *Thoreau.*
The *plump* of proselytes . . . waiting. *George Moore.*
plump, *v. t.* To sow (seed) in plumps, or clumps. — *v. i.* To form crowds; to crowd (together). *Obs.*
plump (plŭmp), *adj.*; PLUMP'ER (plŭmp'ẽr); PLUMP'EST. [MD. *plomp*, MLG. *plump*, orig., falling, heavy, clumsy, and of imitative origin. Cf. PLUMP to fall.] **1.** Blunt; rude; dull. *Obs.*
2. Well rounded or filled out; esp., chubby; fat; as, a *plump* baby; *plump* cheeks; a *plump* ear of corn. Also, ample; rich; as, a *plump* fee. Specif., of a coin, not clipped; of full weight.
Ant. — Lean, spare, lank. See THIN.
plump (plŭmp), *v. t. & i.*; PLUMPED (plŭmpt); PLUMP'ING. To make or become plump; to fill (out); dilate; distend.
plump, *v.* [MD. *plompen*, MLG. *plumpen*, of imitative origin. Cf. PLUMP, *adj.*] *Intransitive*: **1.** To drop, fall, sink, or come in contact, suddenly or heavily; to come or go plump. "Dulcissa *plumps* into a chair." *Spectator.*
2. To give or vote a plumper. See 2d PLUMPER, 2.
——, *Transitive*: **1.** To drop, cast, or plunge all at once or suddenly and heavily; as, to *plump* a stone into water.
She *plumped* him into his little chair. *D. H. Lawrence.*
2. To utter, as an opinion, plump or suddenly; blurt (out).
3. To give (one's votes) as a plumper. See 2d PLUMPER, 2.
plump, *n.* **1.** Act of plumping, or falling, plunging or striking abruptly or heavily; a sudden plunge or heavy fall; also, the sound made by such a fall. *Colloq.*
2. A heavy or sudden shower. *Chiefly Scot.*
plump, *adv.* [Cf. D. *plomp*, interj., LG. *plump*, and E. PLUMP to fall.] **1.** With a sudden or heavy drop; suddenly and heavily; as, to fall *plump*.
2. Straight down; vertically; perpendicularly; also, straight ahead; directly in front.
3. Without hesitation, circumlocution, or concealment; unqualifiedly; straight; directly; bluntly; flatly.
plump, *adj.* [See PLUMP, *adv.*] **1.** Descending or facing directly.
2. Done or made suddenly and without reservation; blunt; direct; unqualified. "The *plump* question disturbed her." *D. H. Lawrence.* "*Plump* assurance." *J. Martineau.*
3. Plumped down; paid at one time. "One *plump* sum." *Dickens.*
plump (plŭmp), *n. & v.* Pump. *Obs. exc. Dial.*
plump'en (plŭmp'ĕn), *v. t.* To make plump or chubby. — *v. i.* To become plump.
plump'er (plŭmp'ẽr), *n.* **1.** One who or that which plumps or swells out something else; esp., something carried in the mouth to fill out the cheeks; also, a false bosom.
2. *Tanning.* A solution that removes acid from the hide, thus allowing the tanning material to act quickly; also, one who applies this solution.
plump'er, *n.* **1.** Act or an instance of plumping, or falling suddenly or heavily, as from a horse; a cropper.
2. [Cf. PLUMP, *adv.*] A vote or votes given to one candidate only, when the voter might vote for more than one for the same office, as for several candidates for a county council.
3. *Slang.* **a** A heavy blow. **b** A downright lie.
plump'ing, *adj.* Large; big. *Colloq.*
plum pocket. *Plant Pathol.* A swollen distorted plum in which the stone is aborted, leaving a hollow cavity. It results from attacks of the parasitic fungi *Taphrina pruni* and *T. communis* which develop in the young branches of wild and cultivated plums. Also, usually *pl.*, the disease caused by this fungus. Called also *bladder plum.*
plum porridge. An old-time Christmas dish made of broth thickened with cereal to which dried plums, raisins, currants, etc., and spices have been added.
plumps (plŭmps), *n.*; *pl.* in form, but construed as sing. [Imitative.] A game of marbles in which the marble shot must hit the one shot at before striking the ground.
plum pudding. **a** A pudding containing plums; specif., a pudding of flour or bread crumbs, raisins, currants, and other fruits, suet, eggs, spices, etc., often boiled in a bag or cloth; also, an ordinary suet pudding with raisins. **b** *Whaling.* A muscular fibrous tissue which permeates the blubber of the tongue of certain whales. — **plum'-pud'ding** (66), *adj.*
plum'-pud'ding stone. *Petrog.* Conglomerate; pudding stone.
plum purple. The color plum.
plump'y (plŭmp'ĭ), *adj.* Plump; chubby.
plum scab. See PEACH SCAB.
plum thrips. The pear thrips.
plum tree. **a** A tree which bears plums. **b** *Slang, U. S.* A source of favors, political appointments, etc. — **plum'-tree',** *adj.*

plu'mu·la (ploo'mû·lȧ; 242), *n.*; *pl.* -LAE (-lē). [L.] *Bot. & Zool.* A plumule.
plu'mu·la'ceous (-lā'shŭs), *adj.* Pertaining to or like a plumule.
plu'mu·lar (ploo'mû·lẽr; 242), *adj.* Relating to a plumule.
Plu'mu·la'ri·a (ploo'mû·lā'rĭ·ȧ; 79; 242), *n.* [NL.] **1.** *Zool.* A genus of calyptoblastic hydrozoans with sessile zooids arranged on only one side of the branching plumelike stems. It is the type of a family, **Plu'mu·la·ri'i·dae** (-lȧ·rī'ĭ·dē).
2. [*not cap.*] Any member of the family Plumulariidae.
— **plu'mu·lar'i·an** (-lâr'ĭ·ăn), *adj. & n.*



Plumularia (*P. setacea*).

plu'mu·late (ploo'mû·lāt), *adj.* *Bot.* Finely plumose.
plu'mule (ploo'mūl; 242), *n.* [L. *plumula*, dim. of *pluma* a feather; cf. F. *plumule.*] **1.** *Bot.* The primary bud of an embryo or germinating seed plant. It is usually at the apex of the hypocotyl (in dicotyledonous plants between the pair of cotyledons) and continues in its development the ascending axis or primary stem.
2. *Zool.* **a** A down feather. **b** An androconium.

Seedling of Morning-glory. 1 Hypocotyl; 2 Plumule; 3, 3 Cotyledons.

plu'mu·li·form' (ploo'mû·lĭ·fôrm'), *adj.* Like a plumule.
plu'mu·lose (-lōs), *adj.* Like, or of the nature of, a plumule.
plum violet. A color, bluish-red in hue, of medium saturation and low brilliance. Cf. COLOR.
plum weevil. The plum curculio.
plum'y (ploom'ĭ), *adj.* **1.** Downy. *Poetic.*
2. Covered or adorned with, abounding in, or like, plumes; plumed; feathery.
plum yew. Any plant of the genus *Cephalotaxus.*
plun'der (plŭn'dẽr), *v. t.*; -DERED (-dẽrd), -DER·ING. [G. *plündern* to plunder, fr. *plunder* household goods, lumber.] To take the goods of by force, as in war, or wrongfully; to pillage; spoil; sack; rob; as, to *plunder* travelers. Hence, to take or appropriate by force or wrongfully; as, the enemy *plundered* all the goods they found; to steal; loot. — *v. i.* To commit robbery, spoliation, or looting.
They would run any hazard to *plunder.* *Defoe.*
Syn. — Despoil, loot, rifle, strip, ravage.
plun'der (plŭn'dẽr), *n.* **1.** Act of plundering, as in war; pillaging; hence, spoliation by extortion.
2. That which is taken by open force, as from an enemy, or by theft or fraud; pillage; spoil; booty; loot.
3. Profit; gains; makings. *Slang.*
4. Personal property; baggage. *Colloq. U. S.*
Syn. — See BOOTY.
plun'der, *v. t.* To perplex. *Obs.*
plun'der·age (-ĭj), *n.* A plundering; specif., *Mar. Law*, embezzlement of goods on shipboard; also, the plunder so got.
plun'der·bund' (plŭn'dẽr·bŭnd'), *n.* [*plunder* + G. *bund* confederacy.] A league of commercial, political, or financial interests that exploits the public. See 3d BUND, 2. *Colloq., U. S.*
plun'der·er (-ẽr), *n.* One who plunders; pillager.
plun'der·ess (-ĕs; -ĭs; 119), *n.* A female plunderer.
plun'der·ing (-ĭng), *part. adj.* That plunders. — **plun'der·ing·ly,** *adv.*
plun'der·ous (-ŭs), *adj.* Given to, or characterized by, plundering.
plun'der·proof' (-proof'; 66), *adj.* See -PROOF.
plunge (plŭnj; 140), *v.*; PLUNGED (plŭnjd); PLUNG'ING (plŭn'jĭng). [ME. *plungen*, *plongen*, fr. OF. *plongier* (F. *plonger*), fr. (assumed) VL. *plumbicare*, fr. L. *plumbum* lead. See PLUMB.] *Transitive*: **1.** To cause to penetrate or enter quickly and forcibly; to thrust or force (into or in liquid, a penetrable substance, or a cavity); to immerse; submerge; as, to *plunge* the body into water; to *plunge* a dagger into the breast. Also figuratively; as, to *plunge* a nation into war.
2. *Obs.* **a** To baptize by immersion. **b** To overwhelm; overcome; embarrass. **c** To thrust or cast oneself into; to dive into.
3. *Hort.* To sink (a potted plant) in the ground or in a bed of prepared material.
4. **a** *Surv.* To set (the horizontal cross wire of a theodolite) in the direction of a grade in plunging a grade. **b** To turn over (the telescope of a transit) on its horizontal transverse axis.
——, *Intransitive*: **1.** To thrust or cast oneself, as into water; to submerge oneself; to dive or rush in; to penetrate, sink, or enter, suddenly or impetuously, as into a forest. Also figuratively; as, to *plunge* into debt.
Forced to *plunge* naked in the raging sea. *Dryden.*
2. To descend or dip suddenly, as a road.
3. **a** To pitch or throw oneself headlong or violently forward and downward, as a horse or ship.
Some wild colt, which . . . flings and *plunges.* *Bp. Hall.*
b Hence, to act with reckless haste.
4. To bet or gamble heavily and with seeming recklessness; to risk large sums in hazardous enterprises. *Slang.*
5. *Geol.* To incline downward; — usually said of a pipelike ore deposit.
Syn. — Drive, thrust, plump; douse, sink, souse. Cf. PUSH, DIP.
plunge a grade. *Civ. Engin.* **a** *Surv.* To establish a grade between two points of known level by sighting the target, set up at either point, through a theodolite fixed at the other point, clamping the instrument, and then bringing the target into the fixed line of sight at any desired intermediate points on the grade. Cf. 4th NONE. **b** To test a railroad embankment or the like as to its reliability or condition by prodding with a light pointed steel rod.
plunge (plŭnj), *n.* **1.** A place for plunging or diving, as a swimming tank; a deep place (in water); a deep pool.
2. A dive, leap, rush, or pitch into, or as into, water; act of pitching oneself headlong or violently forward and, esp., downward; as, to take the water with a *plunge.* Hence: **a** A breaking of a wave. **b** A heavy fall, as of rain. **c** A heavy downward stroke.
3. *Now Dial.* **a** Submergence in difficulty, danger, or the like; a strait; difficulty. **b** An illness.
4. Act or instance of engaging in heavy and reckless betting or hazardous speculation or expenditure. *Slang.*
5. *Geol. & Mining.* The vertical angle between the line of maximum elongation of an ore body and a horizontal plane. Called also *pitch* and *rake.*
plunge bath. A bath in which the bather is immersed in or as in a pool.
plunge battery. *Elec.* A voltaic battery so arranged that the plates can be plunged into, or withdrawn from, the exciting liquid at pleasure.
plung'er (plŭn'jẽr), *n.* **1.** One who plunges; as: **a** A diver. **b** *Slang.* A reckless gambler or speculator. **c** *Mil. Slang. Now Rare.* A cavalryman. **d** *Steel Mfg.* A workman who operates the guides on a rod-rolling mill.
2. That which plunges; as: **a** *Automobiles.* The rod carrying the valves in the inner assembly of a tire valve unit. **b** *Mach.* (1) A sliding reciprocating piece driven by or against fluid pressure; a piston; esp., a long valveless piston, used as a forcer in a force pump (which see), as a ram in a hydraulic press, or the like. (2) A piece with a motion more or less like that of the foregoing, as a device for firing the charge in a cartridge or a contact mine, the dasher of a churn, the iron core of an electric sucking coil, etc. **c** *Pottery.* A tank in which clay is worked with water to the proper consistence; a blunger.
plunger bucket *or* **lift.** A piston, without a valve, in a pump.
plunger elevator. A hydraulic elevator.
plunger magnet. An electromagnet in which an iron core is attracted into a tubular coil, or solenoid.
plunge rod. *Civ. Engin.* A leveling rod or a pointed steel rod used in plunging a grade (see *plunge a grade*, under PLUNGE, *v.*).
plunger piston. = PLUNGER, *n.*, 2 b (1).
plunger pump. A force pump.
plung'ing (plŭn'jĭng), *adj.* That plunges. — **plung'ing·ly,** *adv.*
plunging battery. A plunge battery.
plunging fire. *Gun.* Direct fire on a target from a superior elevation.
plunging rod. A plunge rod.
plunk (plŭngk), *v.*; PLUNKED (plŭngkt); PLUNK'ING. [Imitative.] *Intransitive*: **1.** To make a quick, hollow, metallic, or harsh sound, as by pulling hard on a taut string and quickly releasing it; of a raven, to croak.
2. To drop or sink down suddenly or heavily; to plump.
3. To play truant, or "hooky." *Scot.*
——, *Transitive*: **1.** To cause (a musical string) to plunk.
2. To throw, push, drive, pull, drop, etc. (something) so as to make it plunk; as, to *plunk* down a dollar.
3. To be a truant from (school). *Scot.*
plunk, *n.* **1.** Act or sound of plunking; a blow. *Colloq.*
2. *Slang.* **a** *Obs.* A large sum of money. **b** *U. S.* A dollar.
plunk, *adv. & interj.* With a plunking sound; plump.
plun'ther (plŭn'thẽr), *v. i.* To plod; flounder. *Rare.*
plu'pa·tri·ot'ic (ploo'pā·trĭ·ŏt'ĭk), *adj.* [*plu-* + *patriotic.* Cf. PLUPERFECT.] Extravagantly patriotic.
plu'per'fect (ploo'pûr'fĕkt; ploo'pûr'fĕkt; -fĭkt; 66), *adj.* [L. *plus-quam-perfectum* (sc. *tempus* tense) more than perfect; cf. F. *plus-que-parfait.* See PLUS; PERFECT.]
1. *Gram.* Past perfect.
2. More than perfect or complete; superlative.
3. *Music.* Augmented; — of an interval. *Rare.*
— **plu'per'fect·ly,** *adv.* — **plu'per'fect·ness,** *n.*
plu'per'fect (ploo'pûr'fĕkt; ploo'pûr'fĕkt; -fĭkt; 66), *n.* The pluperfect tense; also, a verb or verb form denoting it.
plu'ral (ploor'ăl; 242), *adj.* [OF. or L.; OF. *plurel* (F. *pluriel*), fr. L. *pluralis*, fr. *plus*, *pluris*, more. See PLUS.]
1. *Gram.* Designating or pertaining to the form of a word denoting more than one, or in some languages having a dual form, as ancient Greek, more than two.
2 More than one; pertaining to, containing, consisting of, or equal to, more than one. "*Plural* faith." *Shak.*
plu'ral (ploor'ăl; 242), *n.* *Gram.* The plural number, the inflectional form denoting it, or a word in that form.
☞ NOTE. The plurals of nouns in Modern English are formed in various ways:
I. The ending *s* or *es* is added: *hats; logs; crosses.*
II. The ending *en* is added: *oxen.*
III. The stem vowel is changed by an old umlaut: *foot, feet.*
IV. A foreign-language ending is retained: *foci; crises.*
V. Many two-word and three-word compounds take the plural ending on the first element: *captains general; fathers-in-law.*
VI. Singular and plural are alike: *deer; species.*
VII. Some names of tribes (*Iroquois*), and names of peoples ending in *-ese* (*Chinese*), are alike in the singular and the plural.
VIII. Many names of fishes, birds, and mammals have a plural form in *s*, *es*, *en*, etc., and also an unchanged plural (identical with the singular).
☞ Other questions concerning plural forms and usage are dealt with in sections IX to XIV, *below.*
I. The ending *s* or *es* is added.
(1) Most nouns add *s*: *book, books* [*pron.* s]; *bag, bags* [*pron.* z]; *boy, boys* [*pron.* z].
(2) Nouns ending in *s, z, x, ch*, or *sh*, add *es* [*pron.* ĕz, ĭz]: *gas, gases; buzz, buzzes; vase, vases; breeze, breezes; face, faces; fox, foxes; torch, torches; dash, dashes; edge, edges.* Nouns ending in *se, ze, ce*, or *dge* with silent *e* add *s* [*pron.* ĕz, ĭz].
(3) Nouns ending in *y* preceded by a consonant change *y* to *i* and add *es*: *mercy, mercies; lady, ladies; sky, skies; army, armies; pity, pities.*
(4) Nouns ending in *quy* change *y* to *i* and add *es*: *colloquy, colloquies; soliloquy, soliloquies.*
(5) Proper nouns ending in *y* preceded by a consonant add *s*: *Mary, Marys.*
(6) Nouns ending in *y* preceded by a vowel, including those ending in *ey*, add *s*: *day, days; key, keys; alloy, alloys, guy, guys; chimney, chimneys; monkey, monkeys; attorney, attorneys.*
(7) Words ending in *o* preceded by a vowel add *s*: *cameo, cameos; duo, duos; embryo, embryos; folio, folios; radio, radios; ratio, ratios; studio, studios; trio, trios.*
(8) Words ending in *oo* add *s*: *kangaroo, kangaroos; halloo, halloos; tattoo, tattoos; coo, coos; cuckoo, cuckoos.*
(9) Most words ending in *o* preceded by a consonant add *s*: *albino, albinos; alto, altos; armadillo, armadillos; banjo, banjos; burro, burros; canto, cantos; casino; chromo; contralto; dido; duodecimo; dynamos; egos; halos; juntos; kimonos; lassos; magnetos; mementos; Merinos; octavos; pianos; provisos; quartos; salvos; solos; sopranos; stilettos; tobaccos; torsos; tyros; zeros.*
(10) Some words ending in *o* preceded by a consonant add *es*: *bastinado, bastinadoes; bilbo, bilboes; bravo, bra-*

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plum'ming. Plumbing. *Ref. Sp.*
plump'ish, *adj.* See -ISH.
plump'ly, *adv.* of PLUMP.
plump'ness, *n.* See -NESS.
plumpt. Plumped. *Ref. Sp.*
plum'rock', plum'rose'. Corruptions of PRIMROSE. *Scot.*
Plum'stead pe·cul'iars (plŭm'stĕd; -stĭd). = PECULIAR PEOPLE b.
plun'der·a·ble, *adj.* See -ABLE.
plun'derd. Plundered. *Ref. Sp.*
plun'der·less, *adj.* See -LESS.
plun'geon (plŭn'jŭn), *n.* [F. *plongeon.*] A diver (bird). *Obs.*
plunk'et, *adj. & n.* [OF. *plonquié* lead-colored (stuff), fr. *plonquier* to cover with lead, fr. (assumed) VL. *plumbicare.* See PLUNGE; cf. BLUNKET.] = BLUNKET. *Obs.*
plunkt. Plunked. *Ref. Sp.*
plup. Var. of PLOP; — suggesting a softer sound.

voes; bubo, buboes; buffalo, buffaloes; calico, calicoes; cargo, cargoes; domino, dominoes; echo, echoes; embargoes; frescoes; grottoes; heroes; innuendoes; jingoes; mangoes; manifestoes; mosquitoes; mottoes; negroes; noes; porticoes; pomatoes; potatoes; tomatoes; tornadoes; torpedoes; vetoes; volcanoes.
(11) Words ending in *i* add *s*: *taxi, taxis; macaroni, macaronis; ski, skis.* But *alkali* adds es: *alkali, alkalies.*
(12) Some nouns ending in *f* change the *f* to *v* and add *es* [pron. z]: *beef, beeves; calf, calves; elf, elves; half, halves; leaf, leaves; loaf, loaves; self, selves; sheaf, sheaves; shelf, shelves; thief, thieves; wharf, wharves; wolf, wolves.*
(13) Some nouns ending in *fe* change to *ves*; *life, lives; wife, wives; knife, knives.*
(14) Letters, numbers, figures, signs, etc., add an apostrophe and *s*: two *A's*; three *4's*.
II. The ending *en* is added to a few nouns: *ox, oxen; child, children; brother, brethren* (or *brothers*).
III. (1) A few nouns retain an umlauted plural: *foot, feet; goose, geese; louse, lice; man, men; mouse, mice; tooth, teeth.*
(2) Compounds formed with *man* (or *woman*) form the plural with *men* (or *women*): *Dutchman, Dutchmen; Englishman, Englishmen; Frenchman, Frenchmen; woman, women; Englishwoman, Englishwomen.*
(3) But many words ending in *man*, which are not English compounds, form the plural with *s*: *German, Germans; Norman, Normans; Ottoman, Ottomans; Roman, Romans; Turcoman, Turcomans; cayman, caymans; talisman, talismans.*
(4) Compounds formed with *foot, mouse*, and *tooth*, form the plural with *feet*, etc.: *forefoot, forefeet; dormouse, dormice; eyetooth, eyeteeth.*
IV. Many words of foreign origin retain the foreign plural; some have an English regular plural and a foreign plural, sometimes with a difference in meaning. For such differences, see the word in the Vocabulary.

abscissa, -scissas, -scissae
acropolis, -lises, -leis
addendum, addenda
adieu, adieus, adieux
administratrix, -trices
adytum, adyta
aegis, aegises
agendum, agenda
alga, algae
alluvium, -viums, -via
alto-rilievo, alti-rilievi
alumna, alumnae
alumnus, alumni
amanuensis, amanuenses
amoeba, -bae, -bas
analysis, analyses
animalculum, animalcula
antenna, -nae, -nas
anthropophagus, -gi
antithesis, antitheses
antrum, antra
apex, apexes, apices
aphis, aphides
apotheosis, apotheoses
apparatus, -ratus, -ratuses
appendix, -dixes, -dices
apsis, apsides
aquarium, -iums, -ia
arboretum, -retums, -reta
arcanum, arcana
arena, arenas, arenae
automaton, -ta, -tons
axis, axes
bacillus, bacilli
bacterium, bacteria
bambino, bambini
bandit, bandits, banditti
basis, bases
basso-rilievo, bassi-rilievi
bateau, bateaux
beau, beaux, beaus
biennium, biennia
bronchus, bronchi
bureau, bureaus, bureaux
cactus, cacti, cactuses
calculus, -li, -luses
calix, calices
callus, calluses, calli
calyx, calyxes, calyces
candelabrum, -bra, -brums
carcinoma, -nomata, -nomas
catalysis, catalyses
cerebellum, -bellums, -bella
cerebrum, -brums, -bra
chapeau, chapeaux, chapeaus
château, châteaux
cherub, cherubim, cherubs
chrysalis, -lises, -lides
cicatrix, -trices, -trixes
cicerone, ciceroni, cicerones
cirrus, cirri
coagulum, coagula
coccus, cocci
codex, codices
colossus, colossi, colossuses
compendium, -diums, -dia
conidium, conidia
convolvulus, -luses, -li
corona, coronas, coronae
corpus, corpora
corrigendum, corrigenda
cortex, cortices
cranium, -niums, -nia
crisis, crises
criterion, -ria, -rions
crux, cruxes, cruces
cumulus, cumuli
curriculum, -lums, -la
custos, custodes
cyclops, -clopes, -clopses
datum, data
decennium, -niums, -nia
desideratum, desiderata
diaeresis, diaereses
diagnosis, diagnoses
dictum, dicta, dictums
dilettante, -ti, -tes
diluvium, -viums, -via
directrix, -trixes, -trices
dogma, dogmas, dogmata
drachma, -mas, -mae, -mai
duodenum, duodena
dux, duces, duxes
effluvium, -via, -viums
elenchus, elenchi
ellipsis, ellipses
elysium, -ums, -a
emphasis, emphases
emporium, -riums, -ria
encomium, -miums, -mia
ephemera, ephemerae, ephemeras
ephemeris, ephemerides
ephemeron, ephemera, ephemerons
epithalamium, -miums, -mia
epithelium, -liums, -lia
equilibrium, -riums, -ria
erratum, errata
esophagus, esophagi
executrix, -trices, -trixes
exegesis, exegeses
exordium, -diums, -dia
fellah, fellahin, fellaheen, fellahs
femur, femurs, femora
fibroma, -mata, -mas
fibula, -lae, -las
flambeau, flambeaux, -beaus
focus, focuses, foci
folium, foliums, folia
formula, -las, lae
fungus, fungi, funguses
ganglion, -glia, -glions
gemma, gemmae
genius, geniuses, genii
gens, gentes
genus, genera
gladiolus, -li, luses
gonidium, gonidia
gravamen, -vamina, -vamens
gumma, gummata
gymnasium, -siums, -sia
haruspex, haruspices
helix, helices, helixes
herbarium, -iums, -ia
hiatus, hiatuses, hiatus
hippocampus, -pi
hippopotamus, -muses, -mi
honorarium, -ia, -iums
humerus, humeri
hypnosis, hypnoses
hypothesis, hypotheses
iambus, iambi
ibex, ibexes, ibices
ictus, ictuses, ictus
imago, imagoes, imagines
imperium, imperia
incubus, -bi, -buses
index, -dexes, -dices
interregnum, interregna
iris, irises, irides
isthmus, isthmuses, isthmi
jinni, jinn
labium, labia
labrum, labra
lacuna, -nae, -nas
lamina, -nae, -nas
larva, larvae
larynx, larynges, larynxes
latex, latices, latexes
lazzarone, lazzaroni
lemma, -mas, -mata
lex, leges
libretto, -tos, -ti
lipoma, -mata, -mas
locus, loci, loca
logos, logoi
lustrum, -trums, -tra
madame, mesdames
maestro, maestros, maestri
magus, magi
mantis, -tes, -tises
matrix, matrices, matrixes
mausoleum, -leums, -lea
maximum, -ma, -mums
meatus, -tuses, -tus
medium, mediums, media
memorandum, -dums, -da
metamorphosis, -phoses
metathesis, metatheses
metempsychosis, -choses
miasma, -mata, -mas
millennium, millenniums, millennia
minimum, -ma, -mums
minutia, minutiae
momentum, -ta, -tums
moratorium, -ria, -riums
narcissus, -cissuses, -cissi
nebula, nebulae, nebulas
necropolis, -lises, -leis
nemesis, nemeses
neurosis, neuroses
nexus, nexuses, nexus
nidus, nidi, niduses
nimbus, nimbi, nimbuses
nomen, nomina
nucleolus, nucleoli
nucleus, nucleuses, nuclei
nympha, nymphae
oasis, oases
octopus, -topuses, -topodes, -topi
oesophagus, oesophagi
operculum, -cula, -culums
operetta, -ettas, -ette
opus, opera
ovum, ova
palazzo, palazzi
palladium, palladia
palpus, palpi
papilla, papillae
pappus, pappi
papyrus, papyri
paralysis, paralyses
parenthesis, parentheses
parhelion, parhelia
pelvis, pelves
penumbra, penumbrae, -bras
periosteum, periostea
periphrasis, periphrases
phalanx, phalanxes, phalanges
phantasma, phantasmata
phasis, phases
phenomenon, -mena, -menons
philtrum, philtra
phylum, phyla
phyma, phymata
pinna, pinnae, pinnas
planetarium, planetaria
plateau, -teaus, -teaux
plexus, plexuses, plexus
polypus, polypi
pons, pontes
pontifex, pontifices
portmanteau, -teaus, -teaux
praenomen, praenomina
proboscis, -boscises, -boscides
procès-verbal, procès-verbaux
prolegomenon, prolegomena
prothalamium, -mia
prothallium, prothallia
psychosis, psychoses
quadrennium, quadrennia
quantum, quanta
quinquennium, quinquennia
rachis, rachises, rachides
radius, radii, radiuses
radix, radices, radixes
ranunculus, -culuses, -culi
referendum, -dums, -da
residuum, residua
rex, reges
rostrum, -tra, -trums
sacrum, sacra
sanatorium, -ria, -riums
sarcophagus, sarcophagi
schema, schemata
scholium, scholia, scholiums
scleroma, scleromata
scutellum, scutella
septum, septa
sequela, sequelae
seraglio, seragli, seraglios
seraphs, seraphim, seraphs
serum, serums, sera
simulacrum, simulacra
sinus, sinus, sinuses
solidus, solidi
solo, solos, soli
soprano, -nos, -ni
spadix, spadices
spectrum, spectra
speculum, -la, -lums
sphinx, sphinxes, sphinges
stadium, stadia
stamen, stamens, stamina
stasis, stases
stemma, stemmata
sternum, -na, -nums
stigma, -mas, -mata
stimulus, stimuli
stoma, stomata
stratum, -ta, -tums
stratus, strati
stria, striae
succedaneum, succedanea
syllabus, -buses, -bi
symposium, -posia, -posiums
synopsis, synopses
synthesis, syntheses
syrinx, syringes
tableau, tableaux, tableaus
tempo, tempi, tempos
tempus, tempora
terminus, termini
testatrix, testatrices
testatum, testata
thema, themata
thesaurus, thesauri
thesis, theses
thorax, thoraxes, thoraces
tibia, tibiae, tibias
trapezium, -ziums, -zia
trousseau, trousseaux, trousseaus
tumulus, tumuli
tympanum, -nums, -na
ultimatum, -tums, -ta
umbra, umbrae
vacuum, -ums, -a
vas, vasa
vertebra, -brae
vertex, -texes, -tices
vertigo, vertigoes, vertigines
vesica, vesicae
viaticum, viatica
virtuoso, -sos, -si
vortex, -texes, -tices.

V. In many two-word and three-word compounds, consisting of a noun with an adjective or a phrase, the first word (a noun) takes the plural form:

accountants general
aides-de-camp
attorneys at law
attorneys general
battles royal
beaux ideal
billets-doux
brothers-in-law
captains general
cartes de visite
chargés d'affaires
coats of mail
commanders in chief
commissaries general
commissioners-general
Comptrollers General
consuls general
courts-martial
cousins-german
daughters-in-law
fathers-in-law
governors general
heirs apparent
heirs-at law
heirs general
inspectors general
knights errant
laws merchant
letters patent
men-at-arms
men-of-war
mothers-in-law
notaries public
paymasters general
poets laureate
postmasters general
sergeants at arms
sergeants-at-law
sergeants major
sisters-in-law
solicitors general
sons-in-law
surgeons general
surveyors general
tables d'hote
vicars general

In similar-appearing terms, when the principal word (a noun) is second, it takes the plural form:

adjutant generals
brigadier generals
judge advocates
lieutenant colonels
lieutenant generals
major generals

VI. Some nouns have the same form in the plural as in the singular: *cattle, mankind.* In ***species, series***, and ***superficies*** this is due to the identity of singular and plural nominative forms in Latin.
VII. (1) Many names of tribes of savage or semicivilized peoples have the same form in the singular and the plural: *Abnaki; Bantu; Iroquois; Kabonga; Kongo; Sioux.*
(2) Certain names of peoples, dwellers in cities, etc. ending in *-ese*, are used as both singular and plural:

Andamanese
Angolese
Aragonese
Assamese
Bolognese
Burmese
Cantonese
Ceylonese
Chinese
Cingalese
Genovese
Japanese
Javanese
Maltese
Milanese
Modenese
Parmese
Pekingese
Portuguese
Siamese
Sudanese
Tyrolese
Viennese

VIII. Names of fishes, birds, and mammals vary between the use of a plural form differing from the singular (*s, es, en, ies, eys, ris*, umlauted, etc.) and of the unchanged form (identical with the singular): Some use a different form in the plural always. Some use the same form as singular or plural always. Some use the different plural to denote different varieties or species or kinds, and the unchanged plural to denote that the idea is collective.
(1) The following always use a plural form differing from the singular: (Some words in this list, as *dog, goat, horse, pig, ox, cow*, if preceded by certain adjectives, esp. *wild, native, sea, mountain* — use the unchanged form as plural; many wild *pig*; a band of *musk ox*, esp. in the language of sportsmen.)

alewife
bigeye
bigmouth
bird (and its compounds, as *blackbird*)
bitterhead
bonnethead
coalmouse
conger
cormorant
corsair
cow
cravo
crow
cuckoo
cuddy
cunner
dab
dabchick
dingo
diver
dog
dolphin
dormouse
dory
dove
dragonet
drake
dugong
eagle
echidna
emu
fair maid
falcon
fathead
fieldfare
finfoot
finnan haddie
flathead
gallinule
galliwasp
gentoo
gibbon
gilthead
glutton
goat
godwit
gorilla
goshawk
grampus
grig
grunt
gudgeon
gunnel
halfbeak
hardtail
harpy
harrier
hawk
hedgehog
hen
hobby
horse
humpback
jaeger
jerboa
kestrel
kinkajou
kipper
kite
knot
koala
lamprey
lark
latchet
lemur
loach
longfin
longspur
loon
lump
mademoiselle
maigre
manatee
mandrill
marlin
marmoset
marmot
medico
merlin
miller's-thumb
mole
mongoose
monkey
mooneye
moray
mosshunker
mouse
mufflejaw
noddy
oldwife
opah
osprey
ounce
owl
ox
oyster catcher
paca
panda
pangolin
pargo
parrot
pelican
penguin
petrel
phalanger
phalarope
pig
pika
pilchard
pilot fish
pintado
platypus
pompano
pope
puddingwife
puffer
puffin
pullet
rat
ratel
raven
ray
redfin
redwing
remora
roker
ruff
sargo
sauger
saurel
saury
sculpin
serrano
shag
shark
sheartail
shearwater
shoveler
shrew
shrike
siamang
silverfin
skua
skylark
sloth
smew
smolt
sole
sparrow
spoonbill
sprat
squaretail
starling
stickleback
sucker
swallow
swelltoad
tang
tarwhine
tattler
tautog
thornback
threadfin
thresher
titmouse
toucan
turnstone
vizcacha
vole
vulture
wallaby
wallaroo
walleye
weever
whaup
wheatear
whimbrel
windowpane
wombat
wrasse
wrymouth
wryneck
yellowfin
zander
zorilla

and names of songbirds, as *robin, thrush, wren.*
(2) The plurals of the following usually have a different form (*s, -es, ies*, etc.), but may, esp. in the language of those who hunt or fish, have the unchanged form:

albatross
anchovy
antelope
argali
badger
bear
beaver
bighorn
bittern
blackcock
blenny
blower
boar
bobcat
bobwhite
bonito
brant
buck
buffalo
canvasback
carabao
caribou
cat
char
chub
clam
cock
codling
coot
cougar
coyote
crake
crane
crappie
curlew
dhole
doe
dog
dotterel
dowitcher
drum
duck
duiker
dunlin
eel
egret
eider
elephant
ermine
fisher
flounder
fowl
fox
gadwall
gannet
gayal
gazelle
giraffe
gnu
goat
goby
goldeneye
goose
goral
grebe
greenhead
grouper
grubby
guanaco
gull
gurnard
hare
hart
hartebeest
herun
herring
hind
hippopotamus
hog
horse
ibex
ibis
impalla
jack
jackal
jacksnipe
jaguar
kiang
killdeer
kittiwake
klipspringer
kudu
lemming
leopard
lion
llama
lobster
lynx
mallard
marten
meadow lark
merganser
mink
minnow
mouflon
mullet
murre
muskrat
nilgai
ocelot
okapi
opossum
oryx
ostrich
otter
ox
panther
parr
partridge
peacock
peafowl
peccary
pheasant
pig
pigeon
pintail
plover
pochard
poggy
pulecat
porcupine
porgy
porpoise
pronghorn
ptarmigan
puma
quail
rabbit
raccoon
rail
requin
rhinoceros
robalo
rockling
sable
sambar
sambur
sandpiper
sardine
scaup
scooter
scoter
seal
sheldrake
shiner
shrimp
sitatunga
skate
skipjack
skunk
smelt
snapper
snipe
squid
squirrel
stag
stilt
stint
stoat
stork
sturgeon
surmullet
swan
tailor
tapir
tarpon
teal
tench
tiger
tortoise
tunny
turkey
turtle
vicuna
walrus
wapite
weasel
whale
whippoorwill
whiting
widgeon
wildcat
wildebeest
willet
wolfe
wolverine
woodcock
yak
yellowtail
zebra
zebu

Webster's New International Dictionary, *Second Edition*

A Composite Page Illustrating Encyclopedic Treatment

Pu'litz·er priz'es (pū'lĭt·sẽr; *orig.* po͝ol'ĭt-). A number of prizes in recognition of literary and newspaper work of outstanding merit and influence for public good, established by the will of Joseph Pulitzer (1847–1911), American newspaper publisher. The prizes are awarded annually for public service by a newspaper, for the best work of a reporter, and for the best and most wholesome novel, play, verse, editorial, cartoon, biography, and history of the year. The prizes were first awarded in 1918 for works produced in 1917. *U. S.*

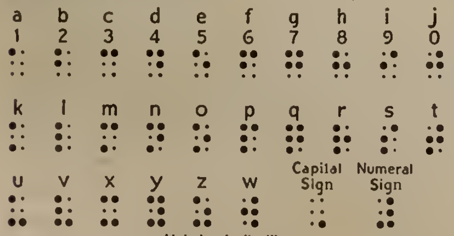
ex·cheq'uer (ĕks·chĕk'ẽr; ĕks'chĕk·ẽr), *n.* [ME. *escheker*, prop., a chessboard, fr. OF. *eschequier*. See CHECKER.] **3.** [*cap.*] *Eng. Hist.* Short for ***Court of Exchequer*** or less commonly ***Exchequer of Pleas***, a court arising from the Exchequer Office (see def. 2), recognized as a distinct court as early as the reign of Henry III. Its jurisdiction originally was theoretically only in revenue matters, but was extended (on the fiction that the wrong to the plaintiff made him unable to pay his debts to the crown) to a concurrent jurisdiction with the other courts of common law and also an equity jurisdiction, abolished in 1841. The judges of this court were one chief and four puisne barons, so styled. By the Judicature Act of 1873 it became the Exchequer Division of the High Court of Justice, and later it was merged in the King's (Queen's) Bench Division. The ***Court of Exchequer Chamber*** was a court of appeal, established in the reign of Edward III, composed of the judges of the three courts. It was abolished in 1875.
4. [*often cap.*] In modern times in Great Britain and Northern Ireland, the department or office of state charged with the receipt and care of the national revenue; hence, the national banking account or purse. The Chancellor of the Exchequer is an important member of the British cabinet.
Careful distinction must be drawn between the *exchequer* and the treasury. The *exchequer* is the national purse, the treasury is the finance department of the state, which controls the *exchequer* on behalf of the executive government, subject to the check and audit of the comptroller and auditor-general. *Dict. of Pol. Econ.*

Port Authority. **a** Short for **Port of London Authority**, a corporate body established in 1908 to control the port and docks of London. **b** Short for **Port of New York Authority**, a commission created in 1921 by the legislatures of the States of New York and New Jersey and approved by Congress. It has to do principally with the co-ordinating of all rail and water traffic into and around New York, esp. the construction of bridges between Manhattan and Staten islands and New Jersey.

con'sti·tu'tion (kŏn'stĭ·tū'shŭn; 242), *n.* [OF., fr. L. *constitutio*.]
6. The fundamental organic law or principles of government of a nation, state, society, or other organized body of men, embodied in written documents, or implied in the institutions and customs of the country or society; also, a written instrument embodying such organic law, and laying down fundamental rules and principles for the conduct of affairs. The British constitution belongs to what are called ***customary***, or ***unwritten, constitutions***, and any part of it may be modified by an ordinary act of Parliament. The Constitution of the United States belongs to what are often called ***rigid constitutions***, and cannot be modified in its express terms, except through such processes as the Constitution itself ordains. Gradual and essentially unconscious changes take place in the effect given to both customary and written constitutions through the development of the law by the judiciary. The Constitution of the United States was framed at Philadelphia in 1787 by a convention, the ***Constitutional Convention*** (May 25 to Sept. 17), called because of the failure of the Articles of Confederation to provide an effective national government. It was adopted and signed on Sept. 17, 1787, by representatives of all the thirteen original States except Rhode Island; and by August, 1788, it had been ratified by eleven States, and went into effect between them. Amendments I to X (the *Bill of Rights*) were ratified (by eleven States) between Nov. 20, 1789, and Dec. 15, 1791; later Amendments were proclaimed to be in force as follows: XI, 1798; XII, 1803; XIII, 1865; XIV, 1868; XV, 1870; XVI & XVII, 1913; XVIII, 1919 (in effect 1920); XIX, 1920; XX, 1933; XXI, 1933. Cf. COMPROMISES OF THE CONSTITUTION.

Old Guard. [F. *Vieille Garde.*] **1.** The original imperial guard created by Napoleon I in 1804, which took a prominent part in his campaigns and made the final French charge at Waterloo. It took this name in 1810 after the creation of the Young Guard as a recruiting force for it. **2.** Hence [*often not caps.*]: **a** Any old group or body of defenders or supporters of an opinion, belief, style, or the like. **b** The older and, usually, more conservative element of a community, organization, or the like. **c** Specif., the conservative, or "standpat," element in the Republican party. — **Old Guardism.**

Braille (brāl), *n.* [*also not cap.*] A system of printing or transcribing for the blind in which the characters are represented by tangible points or dots (see CELL, 4). It was



Alphabet in Braille.

The first ten letters, which serve also as numerals, use the first four dots only; the second ten, *k* to *t*, are exactly the same in order, with the addition of the lower left-hand dot; the remaining letters, *u* to *z*, are the same as *a* to *e*, with the addition of the two lower dots; *w*, not being used in the original Braille alphabet, comes last with an arbitrary sign. Each letter serves also, when standing alone, as a common word. Punctuation marks, compound signs, other whole-word and part-word signs, are also provided for by other combinations of the six dots, as well as the French accented letters and letters with diaeresis.

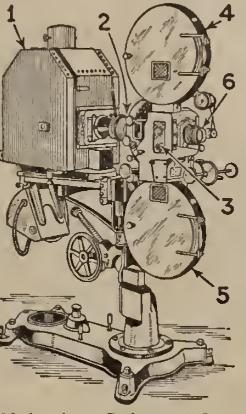
invented in 1829 by Louis Braille (1809–52), a French teacher of the blind, and was introduced with modifications into England (*English Braille*) and the United States (*American Braille*). These have now been revised and made uniform. Cf. LINE LETTER, MOON TYPE, NEW YORK POINT.

Encyclopedic Treatment

Note the fullness and the encyclopedic nature of the definitions. The range and completeness of the information given is surprising. On almost every page there is some compact treatise; while cross references where necessary lead one to more extended study or to expositions of related subjects.

The entries on this composite page, and in the following vocabulary pages, show the great wealth of information available in this New Merriam-Webster.

motion picture. **a** A series of pictures, usually photographs taken with a special machine, a **mo'tion-pic'ture cam'er·a** (see CAMERA, *n.*, 2 **b**), presented to the eye in very rapid succession, with some or all of the objects in the picture represented in successive positions slightly changed, and producing, because of the persistence of vision, the optical effect of a continuous picture in which the objects move. **b** Specif., a photoplay. A machine for projecting and showing motion pictures on a screen is a **mo'tion-pic'ture pro·jec'tor**, or *cinematograph*. Since about 1930, such machines are usually fitted with suitable electrical or mechanical attachments for reproducing sound in synchronism with the picture. Cf. SOUND PROJECTOR. Among early motion-picture machines were: in America, the *kinetoscope* of Thomas A. Edison (1893); in France, the *Cinématographe* of Louis and Auguste Lumière (1893); and in England, the *animatograph* of Robert W. Paul (1896), first called the *theatrograph*. See FILM, *n.*, 5; 1st FRAME, 20. — **mo'tion-pic'ture** (66), *adj.* — **mo'tion-pic'ture**, *v. t. Colloq.*



Motion-picture Projector. 1 Lamp House; 2 Shutter; 3 Housing containing Intermittent Movement Mechanism; 4 Upper, and 5 Lower, Film Magazine; 6 Projection Lens.

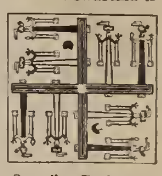
National Industrial Recovery Act. An Act of Congress, passed June 13, 1933, declaring that "a national emergency productive of widespread unemployment and disorganization of industry" was in existence, and vesting in the President of the United States authority to approve or establish codes of fair competition for the various trades and industries, providing esp. for minimum wages and for maximum hours of labor and the operation of machinery; to regulate output if necessary; to regulate, or, if necessary, to bar any imports which might harmfully affect the operation of these codes; to prevent destructive wage or price cutting by licensing business enterprises if necessary; to create a Federal Emergency Administration of Public Works, whose head or administrator was charged with preparing a comprehensive program of public works, including highway construction, conservation and development of natural resources, State and local aid, as for housing and slum-clearance projects, etc. The sum of $3,300,000,000 was appropriated for the purposes of the Act, and the ***National Recovery Administration*** (abbr. *NRA*), consisting of various agencies or officials of the national government, was created for the purpose of administering the Act. Abbr. *NIRA*.

fin'ger·print' (fĭng'gẽr·prĭnt'), *n.* The impression of a finger tip on any surface, as upon glass, polished metal, etc.; esp., an impression of the lines upon the finger taken in ink for purpose of identification; — often used in identifying criminals. Fingerprints are classified as: (1) ***arches***, in which the ridges run from side to side and make no backward turn; (2) ***loops***, in which some ridges make a backward turn but without twist; (3) ***whorls***, in which some ridges turn through at least one complete circuit; and (4) ***composites***, in which combinations of these patterns occur in the same print, or in which the markings are too complex to be classified. — **fin'ger·print'ing**, *n.*

Fingerprints. 1 Arch; 2 Loop; 3 Whorl; 4 Composite.

swas'ti·ka, swas'ti·ca (swăs'tĭ·kȧ; swŏs'-), *n.* Also **suas'ti·ca, svas'ti·ka**, etc. [Skr. *svastika*, fr. *svasti* welfare, fr. *su* well + *asti* being, prop., is. See IS.] **1.** A symbol or ornament in the form of a Greek cross with the ends of the arms bent at right angles all in the same direction, usually clockwise, and each prolonged to the height of the parallel arm of the cross. A great many modified forms exist, ogee and volute as well as rectilinear, while various decorative designs, as the Greek fret or meander, are derived from or closely associated with it. The swastika is found in remains from the Bronze Age in various parts of Europe, esp. at Hissarlik (Troy), and was in frequent use as late as the 10th century. It is found in ancient Persia, in India, where both Jains and Buddhists used (or still use) it as a religious symbol, in China and Japan, and among Indian tribes of North, Central, and South America. It is usually thought to be a charm, talisman, or religious token, esp. a sign of good luck or benediction. Other names for the swastika are *fylfot* and *gammadion*. **2.** [*cap.*] Hakenkreuzler. See HAKENKREUZ. *Germany.*

Typical form of Swastika.



Swastika Design in Navaho Altar Floor.

Bern Convention. A treaty governing international copyright, ratified at Bern, Switzerland, Sept. 5, 1887, by representatives of Great Britain, Belgium, France, Germany, Italy, Spain, Switzerland, Tunis, and Haiti, the basis of which is that authors or publishers of works in any of the contracting countries, on complying with certain formalities, shall enjoy in each of the other countries the same rights as the laws of that country grant to native writers.

East'er (ēs'tẽr), *n.* [AS. *ēastre*, pl. *ēastron* (akin to G. *ostern*), fr. name of old Teut. goddess of spring, AS. *Ēastre*; akin to Skr. *usrā* dawn, and E. EAST.] **1.** An annual church celebration commemorating Christ's resurrection. The early church was divided as to the nature and the time of this celebration. Some communions (see QUARTODECIMAN) were influenced by the coincidence of Christ's death with the Jewish Passover; others, esp. in Gaul, placed Easter always on the 25th of March, the vernal equinox (in the Julian calendar), the day of the resurrection of the vegetation god Attis. Uniformity was established by the first Nicene Council, which determined that Easter is always the first Sunday after the first full moon after the vernal equinox (March 21 in the Gregorian calendar). The date of the full moon is ascertained according to certain calendar rules, and may differ from that of the actual (astronomical) full moon. These rules include as preliminaries the finding of the golden number, epact, and dominical letter. These data, and the dates of Easter for the years 1934–1959, are:

Year	Golden Number	Epact	Dominical Letters	Ash Wednesday	Easter	Year	Golden Number	Epact	Dominical Letters	Ash Wednesday	Easter
1934	16	14	G	F. 14	A. 1	1947	10	8	E	F. 19	A. 6
1935	17	25	F	M. 6	A. 21	1948	11	19	D, C	F. 11	M. 28
1936	18	6	E, D	F. 26	A. 12	1949	12	0	B	M. 2	A. 17
1937	19	17	C	F. 10	M. 28	1950	13	11	A	F. 22	A. 9
1938	1	29	B	M. 2	A. 17	1951	14	22	G	F. 7	M. 25
1939	2	10	A	F. 22	A. 9	1952	15	3	F, E	F. 27	A. 13
1940	3	21	G, F	F. 7	M. 24	1953	16	14	D	F. 18	A. 5
1941	4	2	E	F. 26	A. 13	1954	17	25	C	M. 3	A. 18
1942	5	13	D	F. 18	A. 5	1955	18	6	B	F. 23	A. 10
1943	6	24	C	M. 10	A. 25	1956	19	17	A, G	F. 15	A. 1
1944	7	5	B, A	F. 23	A. 9	1957	1	29	F	M. 6	A. 21
1945	8	16	C	F. 14	A. 1	1958	2	10	E	F. 19	A. 6
1946	9	27	F	M. 6	A. 21	1959	3	21	D	F. 11	M. 29

A. = April; F. = February; M. = March.

The dates of all other movable feasts depend on that of Easter. See FEAST.
2. The Jewish Passover. *Obs.*

trust (trŭst), *n.* [ME. *trust, trost* (also *trist, trest*), fr. (or perh. akin to) ON. *traust* confidence, security (Dan. & Sw. *tröst* comfort, consolation); akin to G. *trost*, Goth. *trausti* a convention, covenant, AS. *trūwian* to trust, ON. *trūa*, AS. *trēowe* faithful; cf. ML. *trustis* trust, protection. See TRUE; cf. TRUST, *v.*, TRYST.]
9. *Law.* An equitable right or interest in property distinct from the legal ownership thereof; a use (as it existed before the Statute of Uses); also, a property interest held by one person for the benefit of another. Trusts are *active*, or *special, express, implied, constructive*, etc. (see these terms). A trust created by a living donor who prescribed in the instrument of gift how the income shall be used and how the principal sum shall be invested or reinvested is sometimes called a ***living trust***. In a ***passive trust*** the trustee simply has title to the trust property, while its control and management are in the beneficiary.
10. A combination of firms or corporations formed by an agreement legally establishing a trust (sense 9), whereby stockholders in the separate corporations exchange their shares for shares representing proportionate interest in the principal and income of the combination, and surrender to the trustees the management and operation of the combined firms or corporations.
11. A permanent organization of any kind controlling the commercial policy of a number of establishments operated independently, esp. when such an organization is strong enough to control the prices of a line of products in a wide range of markets, suppressing or disregarding competition.
☞ Synonymous terms are: CARTEL, CONFERENCE, CORNER, MONOPOLY, POOL, SYNDICATE, TRUST. A MONOPOLY is the exclusive control of the supply of any commodity in a given market, no matter how obtained. A group of financiers organized to profit by such control is known as a SYNDICATE. Purely temporary and local control, as on the stock or produce exchange on a selling day, constitutes a CORNER. More permanent control, based on agreements regarding output or earnings, constitutes a POOL; when based on any form of intercorporate relation, it is currently known as a TRUST, whether there is any actual trust agreement or not. Both pools and trusts are known in Germany as CARTELS, and the name is used to some extent in America, also, to some extent, in England, in place of the older term CONFERENCE.
☞ COMBINATIONS and PHRASES are:

trust agreement	**trust-controlled**	**trust officer**
trust beneficiary	**trust-controlling**, *adj.*	**trust-regulating**, *adj.*
trust-bolstering, *adj*	**trust maker**	**trust-ridden**
trust-breaking, *adj.*	**trustmonger**	**trust-winning**, *adj.*

Ai'mee', **Ai'mée'** (ā'mā'; *F.* ĕ'mā'), *n.* [F. *Aimée.* See AMY.] Beloved; — feminine proper name.
aim'er (ām'ẽr), *n.* One who or that which aims.
aim'ful (-fōōl; -f'l), *adj.* Purposeful. — **aim'ful·ly**, *adv.*
aim'ing (ām'ĭng), *pres. part. & verbal n.* of AIM, *v.*
aiming point. *Mil.* The point at which the line of sighting is directed when the firing piece is being laid for direction. An aiming point other than the target is called an ***auxiliary aiming point.***
aim'less, *adj.* Without aim or purpose; as, an *aimless* life. — **aim'less·ly**, *adv.* — **aim'less·ness**, *n.*
Syn. — Chance, random, blind, undirected, purposeless.
Ant. — Purposive, organized, guided, pointed, directed.
aim'wor'thi·ness (ām'wûr'thĭ-), *n.* Excellence of aim.
A'in (ā'ĭn), *n.* [Heb. *'ayin*; akin to Ar. *'ayn.*] *Bib.* Well; spring; — used in place names, often in its construct form *'ēn*; as, *En Harod*; *Engedi.*
ai'na·leh (ī'nȧ-lĕ), *n.* [Turk. *ayneli*, fr. Per. *āyina* mirror + Turk. *-li* having.] An Oriental rug pattern of repeated medallions, as in Karabaghs.
‖**aî'né'**, *adj. m.*, ‖**aî'née'** (ĕ'nā'), *f.* [F.] Elder; senior; — often after proper names; as, Coquelin *aîné.* Cf. EIGNE.
ain'hum (ăn'hŭm), *n.* [Yoruba *ayun.*] *Med.* A trophic disease usually confined to negroes, resulting in constriction of the little toes so that they come off.
ai'noi (ī'noi), *n. pl.* [Gr., pl. of *ainos* praise.] *Eastern Ch.* A part of the divine office concluding the orthros, or lauds.
ain't (ānt). Also **an't** (ȧnt; änt). Contraction of *are not*, used also indiscriminately for *am not, is not, has not, have not.* Cf. HAIN'T. *Dial.* or *Illit.*
Ai'nu (ī'nōō), *n.* Also **Ai'no** (-nō). [Ainu, lit., man.]
1. A member of an indigenous race of Japan, formerly occupying all or most of the archipelago, but now confined to part of Hokkaido and Karafuto. The Ainus are short and robust, with light-colored skin, features of a European cast, and an abundance of hair and beard. Their culture is primitive and their religion animistic.
2. The language of the Ainus; — an isolated speech without known relationship to any other. Cf. PALAEO-ASIATIC.
Ai'nu, *adj.* Of or pertaining to the Ainus or Ainu.
‖**ai'pi** (ī'pē), ‖**ai'pim'** (ī'pēN'), *n.* [Pg., fr. Tupi *aipi, aipim.*] The sweet cassava. *Brazil.*
air (âr; ăr), *adv. & adj.* [See ERE.] Before; early. *Scot.*
air (âr), *n.* [ME. *aire, eir*, fr. OF. *air*, fr. L. *aer*, fr. Gr. *aēr* air, mist; akin to Gr. *aētēs* wind. In sense 18 the French has taken a meaning fr. It. *aria* atmosphere, air, fr. the same Lat. word through the fem. adj. *aeria, aerea.* See WIND; cf. MALARIA.]
I. In literal senses, as gaseous matter:
1. The invisible, odorless, and tasteless mixture of gases which surrounds the earth, regarded in ancient and medieval times as one of the four "elements," characterized by being warm and moist. See ELEMENT, 1. It consists chiefly of nitrogen and oxygen, nearly in the ratio of four volumes to one, together with 0.9 per cent (by volume) of argon, about 0.03 per cent of carbon dioxide, varying amounts of water vapor, and minute quantities of helium, krypton, neon, and xenon. It contains also varying small amounts of other substances, as ammonia, nitrous and nitric acids, sulphurous and sulphuric acids, as well as suspended particles of dust, bacteria, yeast spores, etc. Of the principal constituents the oxygen supports combustion and renders the air respirable for animals, the carbon dioxide is the source of carbon for growing plants, the nitrogen and argon are inert diluents. One liter of air at 0° C. and 760 mm. pressure weighs 1.293 grams, or $\frac{1}{773}$ of the weight of an equal volume of water. Like other gases, it is compressible and elastic; it transmits sound, is used, as *compressed air*, to transmit mechanical power, and is liquefiable (see LIQUID AIR). It extends perhaps a hundred miles above the earth, but with rapidly decreasing density; half its mass is within four miles of the earth's surface. Its pressure at sea level is about 14.7 pounds to the square inch (1.033 kg. per sq. cm.).
2. The body of the earth's atmosphere; esp., the part of it near the earth, as distinguished from the upper rarefied part; as, the fowls of the *air.* Cf. ETHER, 1.
3. A portion of air or of the air considered with respect to physical characteristics or as affecting the senses; as, damp, smoky, or foul *air*; the *air* of the coast; morning *air.*
4. Scent given off, or effluvium; also, the air (sense 1) regarded as charged with such scent. *Obs.*
5. Air in motion; light breeze; gentle wind; as, a warm *air* from the south.
6. A gas; thus, oxygen was formerly called vital *air.* *Obs.*
II. In figurative senses:
7. Breath or breathing, esp. soft or faint breathing. "My *air* of life." *Marlowe.*
8. Utterance abroad; publicity; as, to give *air* to a view. Hence, *Obs.*, information or intelligence imparted. *Bacon.*
9. Something unsubstantial, light, or volatile.
He was still all *air* and fire. *Macaulay.* [*Air* and *fire* being the finer and quicker elements (see def. 1) as opposed to *earth* and *water.*]
10. A surrounding or pervading influence or condition.
The keen, the wholesome *air* of poverty. *Wordsworth.*
11. Freedom by dismissal, esp. unceremonious dismissal, or discharge; as, to get or be given *the air.* *Slang.*
III. Appearance or manner [after F. *air*]:
12. Outward appearance of a thing; apparent character; semblance; manner; style. "Communicated with the *air* of a secret." *Pope.*
13. The peculiar look, appearance, or bearing of a person; attitude, action, or mien peculiar to, or expressive of, some personal quality or emotion; demeanor or manner; as, the *air* of a youth; a lofty *air.* "His very *air.*" *Shak.*
14. An artificial or affected manner; show of style or vanity; haughtiness; as, to put on *airs*; to give oneself *airs.* "Flourishing my hand with an *air.*" *Borrow.*
IV. In technical senses:
15. *Aviation.* Short for AIR ARM or AIR SERVICE.
16. [Gr. *aēr* air.] *Eastern Ch.* The third of the three thin veils covering chalice and disk with the oblations for the Liturgy.
17. *Manège.* The artificial motion or carriage of a horse.
18. *Music.* **a** In Elizabethan music, a song consisting of a melody accompanied by lute or harpsichord, or by other voices, in prevailingly homophonic style. **b** The chief melody or part in hymns, chorals, part songs, etc.; the voice part, usually the upper, which carries the melody. **c** Rhythmical melody; tune; — a popular use. **d** One of the movements of a suite; also, a similar separate instrumental composition.
19 *Paint. & Drawing.* Representation of the effect of the atmosphere through which objects are seen; atmosphere.
20. *Radio.* Figuratively, the medium of transmission of radio waves; as, to go on the *air* (to begin broadcasting).
Syn. — Manner, attitude. See DEPORTMENT; WIND.
☞ COMBINATIONS and PHRASES are:

air-blasted	air compressor	air-insulated
air-blown	air-conveying	air-pervious
air-born	air-defiling	air remover
air-borne	air-driven	air-seasoned
airbrained	air-embraced	air-spun
air-braked	air-faring	air-stirring
air-braving	air-filled	air strainer
air-breathing, *adj.*	air filter	air-swallowing, *adj.*
air-bred	air-formed	air-threatening
air-chambered	air-hardening, *adj.*	air-trampling
air cleaner	air-heating, *adj.*	air-twisted
air-clear	air injector	air washer

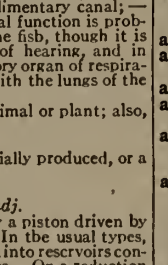
— ***in the air.*** **a** Prevalent without traceable origin or authority, as rumors; as, a spirit of unrest was *in the air.* **b** In a state of confusion, perturbation, or disorder; not yet settled or decided; in suspense; as, his plans are still *in the air*; — also intensively with *up*; as, everything is *up in the air.* **c** *Mil.* Not protected against flank attacks or turning movements by some substantial obstacle, as a river, mountain, or fortification.
air (âr), *v.*; AIRED (ârd); AIR'ING. [See AIR, *n.*; cf. AERATE.] *Transitive*: **1.** To expose to the air for the purpose of cooling, refreshing, or purifying; to ventilate; as, to *air* oneself in the park; to *air* a room.
2. To expose for the sake of public notice; to display ostentatiously; as, to *air* an opinion or a costly jewel.
3. To expose to heat, so as to expel dampness or to warm; as, to *air* linen or liquors.
4. To set to music. *Obs.*
—, *Intransitive*: To take the air, as to refresh oneself.
air (ăr; âr), *n.* [ON. *eyrr.*] Sandbank; beach. *Scot. & Dial. Eng.*
air (âr), *adj.* Of, pertaining to, or using air; specif.: **a** Holding or restraining air so as to prevent its escape, as for cushioning effect, or confining and directing the passage of air, esp. compressed air, as in:

air bed	air cylinder	air shaft
air box	air mattress	air trunk
air bridge	air pillow	air valve
air cock	air scuttle	

b Operating, or operated, by air or, esp., by the force of compressed air; pneumatic, as in:

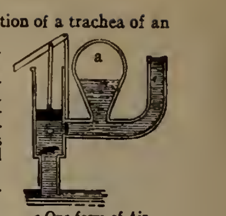
air drill	air machine	air spade
air engine	air motor	air sprayer
air hammer	air oven	air spring
air jack	air shovel	air thermometer

c *Aeronautics.* Of or pert. to the navigation of the air; occurring in the air; done by means of, or using, aircraft; through or using the open air as medium; as, an *air* attack, *air* bus, *air* forces, *air* route.
air'a·ble (âr'ȧ·b'l), *adj.* Capable of being aired.
ai·ram'po (ī-räm'pō), *n.* [Sp., fr. Quechua *airampo.*] A prostrate cactus (*Opuntia soehrensii*) whose dried seeds yield a substance used in the Andes for coloring jellies.
ai·ran' (ī-rän'), *n.* [Turk. *ayran.*] An Altaic and Turkish drink prepared from fermented milk.
air arm. The arm of the system of national defense that makes use of aircraft. See AIR SERVICE. *Brit.*
Ai·ra'va·ta (ī-rä'vȧ-tȧ), *n.* [Skr. *Airāvata.*] *Hindu Myth.* The elephant upon which Indra rides.
air base. *Aeronautics.* A base of operations for aircraft and for the housing, repairing, etc., of the craft.
air bath. **a** An apparatus for applying air to the body. **b** A hygienic exposure of the body to air. **c** See BATH, *n.*, 9.
air bell. An air bubble.
air belt. *Metal.* An annular air space around a cupola furnace, from which air is forced into the furnace.
air billow. *Meteorol.* A wave at the interface of two horizontal layers of air, caused by their difference in velocity.
air'-bind' (âr'bīnd'), *v. i.* To be prevented from moving because of the presence of air. — **air'bound'** (-bound'), *adj.*
air bladder. **1.** *Zool.* A sac containing air or gas, present in most fishes, situated dorsal to the alimentary canal; — called also the *swim bladder.* Its usual function is probably to adjust the specific gravity of the fish, though it is sometimes connected with the organ of hearing, and in dipnoans and some ganoids is an accessory organ of respiration. The air bladder is homologous with the lungs of the higher vertebrates. See LUNG.
2. A sac or bladder full of air in an animal or plant; also, a tracheole of an insect.
3. An air hole in a casting.
air blast. A blast of air, esp. one artificially produced, or a device for producing it.
air blow. See WATER GAS.
air blue. Azurite blue. — **air'-blue'**, *adj.*
air brake. *Mach.* A brake operated by a piston driven by compressed air. See VACUUM BRAKE. In the usual types, as railway and automobile, air is pumped into reservoirs connected to brake cylinders by triple valves. On a reduction of air pressure in the brake pipe, the triple valve automatically admits air from the reservoirs into the brake cylinders, where it actuates pistons that move the brake levers. See WESTINGHOUSE BRAKE.
air'-break' switch. *Elec.* See SWITCH, *n.*
air brick. A hollowed or perforated brick, or a metal box of brick size with grated sides, used for ventilation.
air'brush' (âr'brŭsh'), *n.* A kind of atomizer for applying liquid coloring matter or protective coating in a spray by compressed air.
air bubble *or* **bell.** A bubble of air, as one formed on the surface of a photographic emulsion during development, in glass while molten, or the like.
air'-built' (-bĭlt'), *adj.* Erected in the air; having no solid foundation; chimerical; as, an *air-built* castle.
air bump. *Aeronautics.* **a** A condition of the air, esp. a sudden change of direction or velocity of the wind, or both, that causes an airplane to change direction or altitude violently. **b** The jolt experienced by an airplane under such conditions.



Airbrush. 1 Valve; 2 Color Cup; 3 Tube for compressed air.

air casing. A casing, as of sheet iron, surrounding a pipe with an air space between to prevent transmission of heat.
air castle. A castle in the air (which see).
air cataract. *Meteorol.* The precipitate fall of dense, or heavily laden, air, as in the flow of abnormally cold surface air over a precipice.
air cell. **1.** *Bot.* = AIR SPACE **1**.
2. *Anat.* A cavity or receptacle for air in any part of the body, as an air sac of a bird, a dilatation of a trachea of an insect, etc.
air chamber. Any chamber or cavity filled with air. Specif.: **a** *Bot.* = AIR SPACE **1**. **b** *Mach.* A cavity containing air to act by its elasticity as a spring for equalizing the flow of a liquid in a pump or other hydraulic machine. **c** *Zool.* One of the chambers in the nautilus or other chambered cephalopods. See NAUTILUS, 1 a.



a One form of Air Chamber.

‖**air' cham'pê'tre** (âr' shäN'pâ'tr'). [F.] *Music.* A country air.
air chest. *Organ Bldg.* A wind chest.
air chuck. *Mach.* See 6th CHUCK, 5.
air'-clutch' re·verse'. *Mach.* A reversing mechanism operated by means of air-operated friction clutches.
air condenser. **1.** *Steam Engines, etc.* A surface condenser in which the steam or other vapor is cooled by contact with air-cooled surfaces.
2. *Mach.* An air compressor.
3. *Elec.* See CONDENSER, 2 b.
air conditioning. A process of washing, humidifying, and dehumidifying air before it enters a room, hall, or building. — **air conditioner.** — **air'-con·di'tioned**, *adj.*
air control. *Aeronautics.* See CONTROL, *n.*, 4 a.
air'-cool' (âr'kōōl'), *v. t.* To cool by means of air; specif., to cool the cylinder or cylinders of (an internal-combustion engine) by air without the use of any intermediate medium, as water or oil. Cf. WATER-COOL. — **air'-cooled'** (-kōōld'), *adj.* — **air cooling**, or **air'-cool'ing**, *n.*
air-cooled condenser. A kind of steam condenser.
air-cooled storage. Storage that utilizes air at outside temperature for cooling purposes; specif., a storage place, esp. for fruit or vegetables, having openings just above the ground level for the admission of cool air and at the top for the escape of warm air and gases.
air-cooled transformer. *Elec.* See TRANSFORMER.
air'-core' trans·form'er. *Elec.* See TRANSFORMER.
Air Corps. The United States aviation organization for military service, having as its units the flight, group, wing, and brigade. It is under the control of a major general known as ***Chief of the Air Corps.*** See INSIGNIA, *Illust.*
Air Council. In Great Britain, an administrative body, analogous to the Army Council, in which is vested the control of the Royal Air Force. The Secretary of State for Air (Air Minister) is president of the Air Council.
air'craft' (âr'krȧft'), *n.* Any weight-carrying device or structure for navigation of the air, designed to be supported by the air, either by the buoyancy of the structure or by the dynamic action of the air against its surfaces; — used as a sing. or a collective pl. Airplanes, balloons, helicopters, kites, kite balloons, ornithopters, and gliders are classed as aircraft, but the term is applied chiefly to airplanes or aerostats. A ***public aircraft*** is one used exclusively in government service; any other is a ***civil aircraft.***
aircraft carrier. *Nav.* A ship designed to carry aircraft and so constructed that aircraft can be launched from it and landed on it. See NAVY, 2.
aircraft division. *U. S. Navy.* A subdivision of a squadron of aircraft, containing usually from four to six planes.
aircraft section. *U. S. Navy.* A subdivision of a squadron of aircraft, containing usually two planes.
aircraft station. A radio transmitting station aboard an aircraft. Cf. AERONAUTICAL STATION.
air crossing. In mines, a passage by which one airway crosses another. Cf. 1st OVERCAST, *n.*; UNDERCAST, *n.*
air'-cure' (âr'kūr'), *v. t.* To cure by means of air; specif., to cure (tobacco) under natural atmospheric conditions without the use of fire except to prevent poleburn. Cf. FLUE-CURE.
air cushion. An airtight inflatable cushion; also, a device, using confined air, for arresting motion without shock.
air drain. *Arch.* A passage or flue to conduct fresh air, as to a fireplace, to woodwork to preserve it, or to foundation walls to keep them dry. Cf. AIR DUCT.
air drainage. *Meteorol.* See AERIAL DRAINAGE.
air'-drawn' (âr'drôn'), *adj.* Drawn in air; phantom.
This is the *air-drawn* dagger. *Shak.*
air'drome' (âr'drōm'), *n.* [*air* + *-drome.*] An airport.
air'-dry' (âr'drī'), *adj.* Dry to such a degree that no further moisture is given up on exposure to air.
air'-dry' (âr'drī'), *v. t.*; -DRIED' (-drīd'); -DRY'ING. To dry by means of air, esp., as wood or fruits, by exposure to air under ordinary conditions. — *v. i.* To become dry in air.
air duct. **1.** A duct or pipe for conveying air, as to the rooms of a house or ship for ventilation, to a furnace, etc.; — often applied to a light or temporary construction, as opposed to an *air drain* of masonry.
2. *Zool.* Specif., the duct connecting the air bladder and alimentary canal of certain fishes.
ai're (ä'rȧ), *n.*; *pl.* AIRIG (ä'rĭk). [Ir.] In early Irish society, a person of any of various ranks above the common freeman and below the king, the aire of one grade taking stock from his higher chieftain and paying him a food rent. Some of the various grades and subgrades, each with its special rights and privileges, property and retinue, were the ***og' ai're*** (ŏg'), junior lord, the ***bo' ai're*** (bō'), cattle lord, with 7 and 12 head of cattle respectively; the ***ai're de'sa*** (dĕs'ȧ), ruling noble, the ***ai're ard'*** (ôrd'), high noble, the ***ai're tui'se*** (thōōsh'ȧ), leading noble, and the ***ai're for'gill*** (fôr'gĭl), noble of superior testimony, with 10, 20, 27, and 40 tenants respectively.
Aire'dale' ter'ri·er (âr'dāl'). [From the *dale* of the *Aire*, Yorkshire.] A large terrier of a breed with hard and wiry coat, supposedly produced by crossing the black-and-tan terrier, bull terrier, and otterhound. The height is about 20 inches, and the weight from 35 to 45 pounds. In color it is black or dark-grizzle on back and sides, and tan elsewhere. The breed is said to have been developed by poachers, who needed a dog with a hunting sense, fighting instinct, and a coat not easily discernible at night.
air ejector. A device for ejecting air; specif., *Steam Engin.*, a device that removes air and other gases from steam condensers through the suction action of a steam jet.
air embolism. *Med.* Obstruction of the circulation by air which has entered the veins.
air'er (âr'ẽr), *n.* One who or that which exposes to the air; specif., a frame on which clothes are aired or dried.
air'field' (âr'fēld'), *n.* The field of an airport.
air fleet. *Aeronautics.* A group or assemblage of aircraft; esp., a large group of military aircraft under a single command; also, the collective military aircraft of a nation.
air float. *Bot.* An air vesicle.

aimd. Aimed. *Ref. Sp.* [CYPRO.]
Ai'mo·re' (-mō-rā'), *n.* = BOTO
Aim'well' (ām'wĕl'), *n.* See BEAUX' STRATAGEM
a'in (ä'yēn). Var. of 'AYIN.
ain (ān). *Scot.*, N. of Eng., & Ir. var. of OWN, OWE [var. of OWER.]
aince (āns). *Scot.* & dial. Eng.
Ai'no (ī'nō). Var. of AINU.
ains (āns). *Scot.* var. of ONCE.
ain'sell' (ān'sĕl'). Ownsell. *Scot.*
ai'on (ī'ŏn), *n.* = AEON. — **ai·o'ni·al** (ī-ō'nĭ-ăl), *adj.* Both *Rare.*
A'ion (ā'yŏn). *D. Bib.*
air. Var. of ERE, EYRE.
air (âr; *Scot.* âr). Dial. Eng. & Scot. var. of OAR, HYIR.
air (âr). Dial. var. of ARE.
air (âr), *adj.* = ARY. *Dial.*
Ai'ra (ā'rȧ), *n.* [NL.] *Bot.* Syn. of DESCHAMPSIA. [CUIT BREAKER.]
air circuit breaker. See CIR-
air corridor. = AIR STREAM.
aird. Aired. *Ref. Sp.*
air'dock', *n.* = HANGAR, 2.
aird·ri', **aird·righ'** (ôrd-rē'; ôrd'-rē). Vars. of ARDRI.
aire. † AYRIE, AIR, EYRE.
Aire'dale', *n.* Short for AIREDALE TERRIER.

EARLY TYPES OF AIRCRAFT

Otto Lilienthal's Gliding Machine

Sir Hiram Maxim's Steam Flying Machine

Otto Chanute's Gliding Machine

Wright Brothers' Airplane
MET REQUIREMENTS U. S. A. SIGNAL CORPS, JULY 27, 1909

Louis Bleriot's Monoplane
FIRST AIRPLANE TO CROSS ENGLISH CHANNEL, JULY 25, 1909

Henry Farman's Airplane
WON ARCHDEACON PRIZE, JAN. 13, 1908, BY SAILING A KILOMETFR IN A CIRCLE

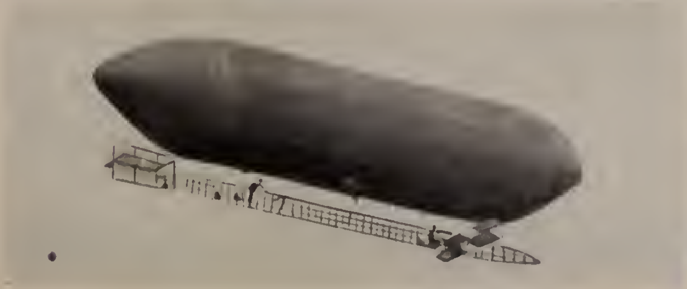
Glenn H. Curtiss's Airplane "June Bug"
WON SCIENTIFIC AMERICAN TROPHY, JULY 4, 1908, BY FLYING OVER A MILE IN A STRAIGHT LINE

Melvin Vaniman's Triplane

Antoinette Monoplane

Alberto Santos-Dumont's Monoplane "Demoiselle"
REMARKABLE FOR ITS SMALL SIZE

Alberto Santos-Dumont's Dirigible Balloon
FIRST GAS BAG TO SUPPORT A MOTOR



Dirigible Balloon "Signal Corps Dirigible No. 1"
BUILT BY CAPT. THOMAS L. BALDWIN

Rigid Airship "Zeppelin II"
TRAVELED 850 MILES IN 36 HOURS, MAY 29-31, 1909

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AIRCRAFT—PERIOD OF THE WORLD WAR

MORANE-SAULNIER (*French*) MONOPLANE

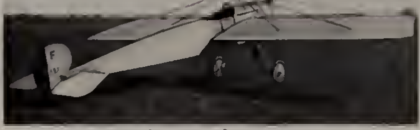
CURTISS (*American*) HYDROPLANE

DEPERDUSSIN (*French*) MONOPLANE

CAPRONI (*Italian*) TRIPLANE

UNITED STATES NAVY NONRIGID DIRIGIBLE BALLOON

ASTRA-TORRES SEMIRIGID DIRIGIBLE BALLOON
USED BY BRITISH AND FRENCH NAVIES


FOKKER (*German*) MONOPLANE

RUMPLER (*German*) BIPLANE

OBSERVATION BALLOON

S. I. A. (*Italian*) TWO-SEATER BIPLANE

"FRIEDRICHSHAFEN" (*German*) TWIN-MOTORED BIPLANE

MODEL K CURTISS (*American*) TRIPLANE

SPAD (*French*) SINGLE-SEATER BIPLANE

SALMSON (*French*) TWO-SEATER BIPLANE

BREGUET (*French*) TWO-SEATER BIPLANE

U. S. NAVY CURTISS SEAPLANE

U. S. NAVY CURTISS AIR CRUISER "N. C. 1."
FIRST AMERICAN TRIMOTORED SEAPLANE

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AIRCRAFT—PERIOD OF THE WORLD WAR AND LATER

NIEUPORT (*French*) SINGLE-SEATER BIPLANE

DE HAVILAND BIPLANE (*American*)

POMILIO (*Italian*) SCOUT BIPLANE

STANDARD (*American*) FLYING BOAT

PFALZ (*German*) BIPLANE

HALBERSTADT (*German*) BIPLANE

HANDLEY-PAGE (*British*) AIR CRUISER
4 MOTORS. WING SPAN 129 FT.

A. E. G. (*German*) TWIN-MOTORED BIPLANE

FOKKER TRIMOTORED MONOPLANE "JOSEPHINE FORD" *U. & U.*
FLOWN OVER NORTH POLE, MAY 9, 1926

FOKKER TRIMOTORED MONOPLANE "AMERICA" *Brown Bros.*
NONSTOP FLIGHT NEW YORK TO FRANCE, JUNE 29-JULY 1, 1927

CURTISS "SEA HAWK" BIPLANE *U. & U.*

BREGUET MONOPLANE "QUESTION MARK" *Brown Bros.*
NONSTOP FLIGHT PARIS TO NEW YORK, SEPT. 1-2, 1930

BELLANCA MONOPLANE "COLUMBIA" *U. & U.*
NEW YORK TO GERMANY, JUNE 4-5, 1927

RYAN MONOPLANE "SPIRIT OF ST. LOUIS" *Keystone*
LINDBERGH NONSTOP FLIGHT NEW YORK TO PARIS, MAY 20-21, 1927

LOCKHEED-VEGA MONOPLANE "WINNIE MAE" *Acme*
ROUND-THE-WORLD FLIGHTS, 1931 AND 1933

DE HAVILAND MONOPLANE "THE HEART'S CONTENT" *Acme*
IRELAND TO NEW BRUNSWICK, CANADA, AUG. 18-19, 1932

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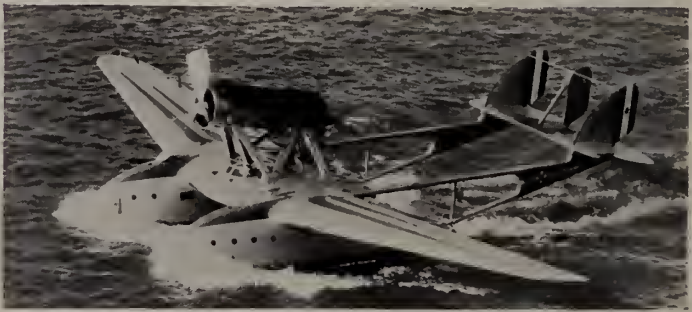
RECENT TYPES OF AIRCRAFT

DORNIER FLYING BOAT "DO-X" *Publishers' Photo*

U. S. NAVAL AIRSHIP "MACON" *Brown Bros.*

LINDBERGH'S LOCKHEED-SIRIUS MONOPLANE "NR 211" *U. & U.*


SAVOIA-MARCHETTI SEAPLANE

PITCAIRN AUTOGIRO

THE GRAF ZEPPELIN *Acme*

GEE BEE SPORT RACER *Brown Bros.*
WORLD SPEED RECORD FOR LANDPLANES, 1932

CIERVA DIRECT CONTROL AUTOGIRO

STINSON 4-PASSENGER MONOPLANE

GONDOLA OF PROF. PICCARD'S STRATOSPHERE BALLOON *Keystone*

SIKORSKY AMPHIBIAN TRANSPORT

GONDOLA OF THE SOVIET STRATOSPHERE BALLOON "U.S.S.R."

BOEING TWIN-MOTORED TRANSPORT

CURTISS-WRIGHT "CONDOR" TWIN-MOTORED TRANSPORT

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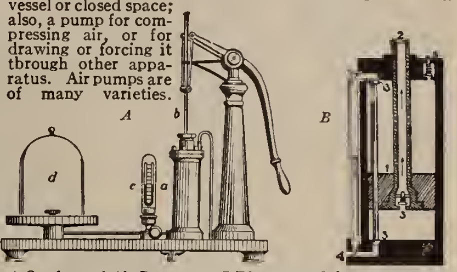
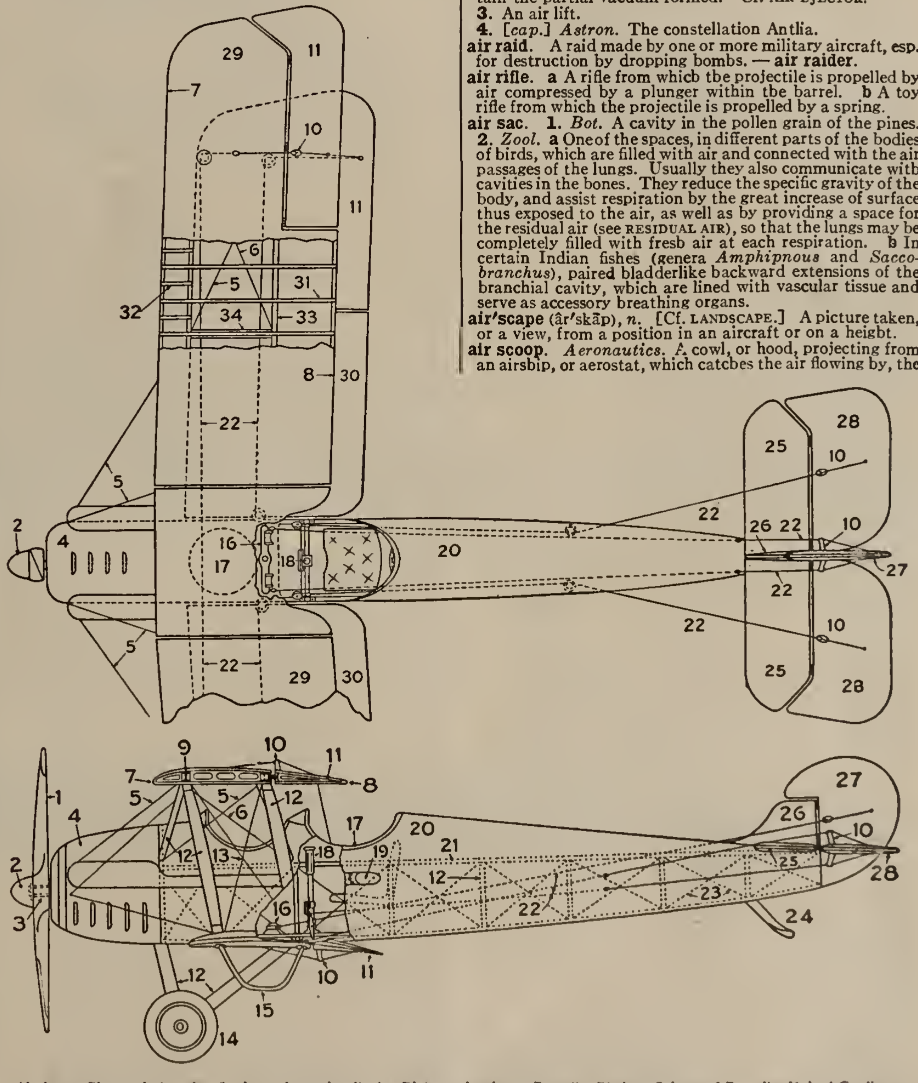
air′-float′ed (âr′flōt′ĕd; -ĭd), *adj.* Floated out or separated, as fine dust from crushed ore, by a current of air.
air′foil′ (âr′foil′), *n.* [*air* + *foil.*] *Aeronautics.* Any surface, flat or curved, as a wing, aileron, or rudder, designed to obtain reaction upon its surfaces from the air through which it moves. Cf. DRAG, *n.;* 3d LIFT, 10.
airfoil section. A section of an airfoil made by a plane parallel to a specified reference plane.
air force. **a** A military force equipped primarily for hostilities in the air. **b** [*caps.*] Short for ROYAL AIR FORCE.
air furnace. **a** A furnace that depends on a natural draft and not on blast. **b** A furnace for heating air.
air gap. **1.** *Physics.* An air-filled gap in a magnetic or electric circuit; specif., in a dynamo or motor, the space between the field-magnet poles and the armature; clearance. **2.** = WIND GAP.
air gas. **a** A combustible gas made by charging air with the vapor of some volatile hydrocarbon mixture, as gasoline, and used for lighting and heating. **b** A variety of producer gas made by blowing air alone into a producer. It consists chiefly of carbon monoxide and nitrogen.
air gauge. A gauge for measuring air pressure.
air gun. A kind of gun in which the elastic force of condensed air is used to discharge the ball.
air′-hard′en·ing steel. A kind of steel which when heated and allowed to cool slowly in air becomes very hard. It usually contains two or three per cent of manganese and four to six per cent of tungsten.
air hoist. A pneumatic hoist.
air hole. **1.** A hole to admit or discharge air; specif., a spot not frozen over in the ice, esp. one caused by a spring or current in a river or pond.
2. Any condition of the atmosphere, as a local down current or an abrupt change of wind velocity in the direction of travel, that causes an airplane to drop suddenly.
3. *Founding.* A fault in a casting produced by a bubble of air; a blowhole.
air horn. A carburetor main air intake; — so called because its shape originally resembled the bell of a horn.
air hunger. *Med.* Shortness of breath, usually characterized by rapid, labored breathing, due to a lack of sufficient oxygen, and caused esp. by acidosis.
air·if′er·ous (âr·ĭf′ĕr·ŭs), *adj.* Aeriferous.
air′i·fied (âr′ĭ·fīd), *adj.* **a** Fashioned in an airy style. **b** Affecting airs.
air′i·ly (âr′ĭ·lĭ), *adv.* In an airy manner; lightly; thinly; delicately; gaily; jauntily.
air′i·ness (âr′ĭ·nĕs; -nĭs), *n.* State or quality of being airy; esp., sprightliness; delicacy.
air′ing (âr′ĭng), *n.* **1.** An exposure to air, or to heat, for warming, drying, etc.; as, the *airing* of linen, or of a room.
2. A walk, ride, drive, or (of horses) run in the open air, usually to promote health or fitness.
3. An exposure to public notice; ostentatious display; as, an *airing* of one's opinions.
air injection. The injection of atomized fuel oil into the combustion chamber of a Diesel engine by means of a jet of compressed air. Cf. SOLID INJECTION.
air′ish (âr′ĭsh), *adj.* Of the air; hence, cool; breezy. *Dial.*
air jacket. **1.** A jacket having inflatable airtight cells, to render persons buoyant in swimming.
2. *Mach.* See JACKET, *n.*
air lance. A device, as a nozzle, used in air-lancing.
air′-lance′ (âr′lăns′), *v. t.* To remove or cut away by means of a stream of air under pressure.
air lane. A path through the air, esp. one made easy for aerial navigation by steady winds.
air law. That part of the law dealing with aerial navigation.
air layering. A form of propagation, employed with certain plants whose branches cannot be brought to the ground for layering, in which a portion of a branch or stem, sometimes girdled, is kept covered, as by wrapping with moist soil, moss, or the like, until it forms roots and may be detached from the parent and planted. See LAYER, *n.*, 4. The process is specified as ***pot layering*** when the rooting medium is enclosed, as in a pot or box, and as ***marcottage***, or ***Chinese layering***, when the ball of earth or moss is merely tied about the stem.
air leak. *Elec.* The gradual loss of an electric charge from an insulated conductor because of the ionized condition of the surrounding air.
air lift. A form of displacement pump consisting of two different-sized pipes, one within or adjacent to the other. Compressed air or gas forced down through the smaller pipe causes the fluid which is to be pumped to expand and rise through the larger. Cf. RETURN AIR LIFT.
air line. **1.** A straight line, as through the air; a beeline.
2. A tubular line, as a pipe, conveying air; specif., in irrigation, a pipe with a pressure gauge for measuring the distance from the top of a well to the water.
3. *Aeronautics.* **a** A system of transportation by aircraft, or the equipment with which the system operates. **b** The company or business organization owning or operating such a system. **c** The route covered.
air′-line′ (66), *adj.* Straight; direct; as, an *air-line* road.
air liner. An aircraft belonging to or operating over an air line (sense 3).
air lock, *or, esp. in sense 2,* **air′-lock′**, *n.* **1.** *Hydraul. Engin.* An intermediate chamber between the outer air and the working chamber of a pneumatic caisson.
2. *Mach.* A stoppage of flow, as in a pumping device, caused by air being in a part where liquid ought to circulate.
air′-lock′, *v. t. & i.* *Mach.* To stop a flow by an air lock.
air log. An apparatus for measuring the air speed of an aircraft. See AIR SPEED.
air mail. **a** The system of transporting mail by aircraft. **b** The equipment so used. **c** The mail so transported.
air′-mail′ en′ve·lope. A stamped envelope of distinctive design for air-mail use.
air′-mail′ stamp. A postage stamp designed for air-mail use.
air′man (âr′măn), *n.* **1.** A man who flies in an aircraft, esp. as its pilot or as a member of its crew.
2. *Mining.* An airwayman.
air′man·ship (-shĭp), *n.* The art or skill of an airman, esp. in piloting an aircraft.
air map. A map made up of a series of photographs taken from an aircraft.
air meter. A device for measuring the quantity of air or gas passing through a pipe or into or out of a chamber.
air′-mind′ed (âr′mīn′dĕd; 66; 119); *adj.* Interested in, or favorably disposed toward, aerial activities. — **air′-mind′ed·ness**, *n.*
Air Ministry. A department of the British ministry (see MINISTRY, 7 **b**), formed on January 2, 1918, dealing with matters pertaining to aviation, both military and civil. The **Air Minister** is a member of the Cabinet (Secretary of State for Air). See ROYAL AIR FORCE.
air′mon′ger (âr′mŭng′gẽr), *n.* One who is given to visionary projects.
air′o·hy′dro·gen (âr′ō·hī′drō·jĕn), *adj.* Pert. to air and hydrogen; — of a blowpipe using air instead of pure oxygen.
air·om′e·ter (âr·ŏm′ē·tẽr), *n.* [*air* + *-meter.*] **a** A kind of gasometer for holding air. **b** An instrument for measuring the rate of flow of air; an air meter.
air passage. *Bot.* An air space.
air philately. Aerophilately.
air photography. Aerial photography.
air′plane′ (âr′plān′), *n.* A form of mechanically driven aircraft, heavier than air, which is driven through the air by a screw propeller and obtains support by the dynamic reaction of the air against the wings. Among the pioneer types of motor-driven aircraft were those of S. P. Langley (1903) and Orville and Wilbur Wright (1905). Langley's airplane was equipped with a light steam engine and the Wrights' with a gasoline motor. A *pusher airplane* is one with the propeller in the rear of the main supporting surfaces; a *tractor airplane* is one with the propeller forward. A *tandem airplane* has two or more sets of wings, of about the same area, placed one in front of the other on the same level. *Airplane* is commonly used to designate a *landplane* as distinguished from a *seaplane*. Cf. SEAPLANE. A *monoplane*, *biplane*, *triplane*, *quadruplane*, or *multiplane* is an airplane with one, two, three, four, or more main supporting surfaces, placed one above the other. See MONOPLANE.
☞ The form *airplane* has been officially adopted by the United States Army and Navy, Bureau of Standards, etc.; *aeroplane* is still generally used by British writers.
air′plane′, *v. i.;* -PLANED′ (-plānd′); -PLAN′ING (-plān′ĭng). To fly in an airplane.
airplane carrier. An aircraft carrier.
airplane cloth. A firm-textured, crashlike fabric, originally of linen, but now often of cotton.
airplane flare. A flare designed to be dropped from an airplane to illuminate a ground area. It consists basically of a silk parachute suspending a charge of magnesium light which ignites automatically upon being dropped from the plane.
air′port′ (âr′pōrt′; 181), *n.* A place, either on land or on water, where aircraft may land to discharge or receive cargoes and passengers, make repairs, or take in fuel.
air port. An opening to release or admit air.
air post. Air mail.
air potato. An Asiatic yam (*Dioscorea bulbifera*) sometimes cultivated for its large axillary potatolike tubers.
air′proof′ (âr′proof′; 66), *adj.* Proof against air.
air′proof′, *v. t.* To make or render airproof.
air propeller. A device, as a rotary fan, for circulating air; also, a high-speed fan for propelling a vehicle.
air pump. **1.** *Physics.* A pump for exhausting air from a vessel or closed space; also, a pump for compressing air, or for drawing or forcing it through other apparatus. Air pumps are of many varieties.



A One form of Air Pump. *a* Cylinder; *b* Piston Rod; *c* Manometer; *d* Receiver or Bell Glass. *B* Diagram of Cylinder. 1 Piston; 2 Hollow Piston Rod for escape of air with descending piston; 3, 3, 3 Valves; 4 Tube to Receiver.

Some operate by means of a cylinder and piston (see *Illust.*) or some equivalent device, while others depend on the suction of a flowing liquid, as mercury or water. See SPRENGEL PUMP, MERCURY PUMP, GEISSLER PUMP.
2. *Steam Engines.* A pump used to exhaust air or a mixture of air and water from a condenser and thereby maintain the partial vacuum formed. Cf. AIR EJECTOR.
3. An air lift.
4. [*cap.*] *Astron.* The constellation Antlia.
air raid. A raid made by one or more military aircraft, esp. for destruction by dropping bombs. — **air raider.**
air rifle. **a** A rifle from which the projectile is propelled by air compressed by a plunger within the barrel. **b** A toy rifle from which the projectile is propelled by a spring.
air sac. **1.** *Bot.* A cavity in the pollen grain of the pines.
2. *Zool.* **a** One of the spaces, in different parts of the bodies of birds, which are filled with air and connected with the air passages of the lungs. Usually they also communicate with cavities in the bones. They reduce the specific gravity of the body, and assist respiration by the great increase of surface thus exposed to the air, as well as by providing a space for the residual air (see RESIDUAL AIR), so that the lungs may be completely filled with fresh air at each respiration. **b** In certain Indian fishes (genera *Amphipnous* and *Saccobranchus*), paired bladderlike backward extensions of the branchial cavity, which are lined with vascular tissue and serve as accessory breathing organs.
air′scape (âr′skāp), *n.* [Cf. LANDSCAPE.] A picture taken, or a view, from a position in an aircraft or on a height.
air scoop. *Aeronautics.* A cowl, or hood, projecting from an airship, or aerostat, which catches the air flowing by, the pressure thus produced in the interior of the ballonet serving to maintain its shape.

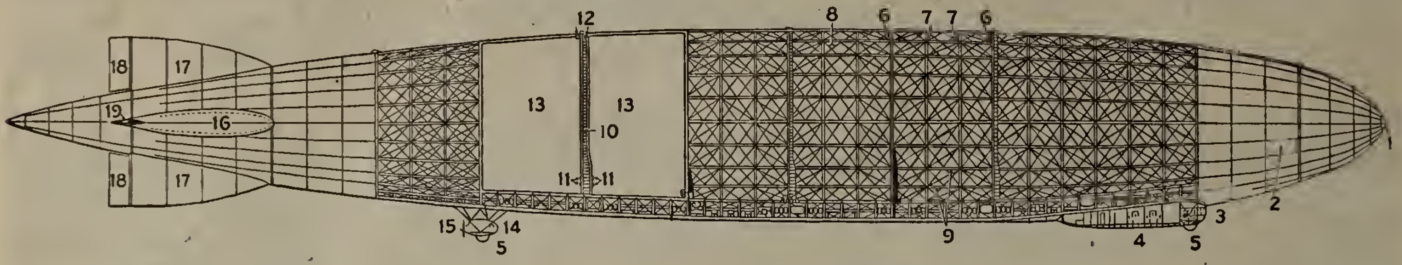


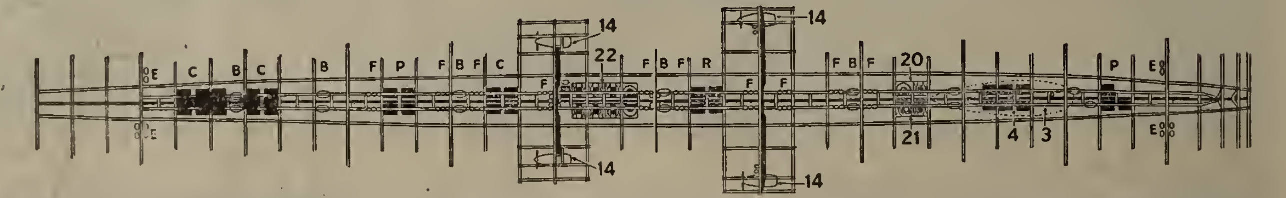
Airplane. Plan and elevation (both partly sectional) of a Biplane, showing: 1 Propeller Blade; 2 Spinner; 3 Propeller Hub; 4 Cowling; 5 Drag Wire; 6 Antidrag Wire; 7 Leading Edge; 8 Trailing Edge; 9 Wing Spar (front); 10 Horn; 11 Aileron; 12 Strut; 13 Stagger Wires; 14 Landing Gear; 15 Wing Skid; 16 Rudder Bar; 17 Cockpit; 18 Control Stick; 19 Exhaust Pipe; 20 Fuselage; 21 Longéron; 22 Control Wires; 23 Stays; 24 Tail Skid; 25 Stabilizer; 26 Fin; 27 Rudder; 28 Elevator; 29 Upper Wing or Plane; 30 Lower Wing or Plane; 31 Wing Rib; 32 Wing Rib Former, or False Rib; 33 Wing Spar (rear); 34 Drag Strut.

air′plan′ist (âr′plān′ĭst), *n.* One who flies in an airplane.
air plant. **a** An epiphyte. **b** The life plant *Bryophylum pinnatum.*
air plug. *Naut.* A removable plug screwed into a water-tight manhole or scuttle cover.
air pocket. **a** An air hole (sense 2). **b** An air-filled section, as of a pipe supposed to be completely filled with liquid.
air pore. *Bot.* = STOMA, 2 **a**.
air scout. See SCOUT, *n.*
air′screw′ (âr′skrōō′), *n.* A screw or screw propeller designed to operate in air; specif., *Eng.*, an airplane propeller.
air′-sea′son, *v. t.* To season by exposure to air.
air separation. Separation, esp. of a light from a heavier material, by means of an air current.

airgh (ârκ; ărκ). Scot. var. of ARGH.
air′graph′ics, *n.* = AEROGRAPHICS.
air harbor. = AIRPORT. *Canada.*
airle′-pen′ny (ârl′pĕn′ĭ; ârl′-), **airles** (ârlz; ărlz). Scot. vars. of ARLES PENNY, ARLES.
air′less, *adj.* See -LESS.
air level. = SPIRIT LEVEL.
air′like′, *adj.* See -LIKE.
air′ling, *n.* A thoughtless, gay person. *Obs.*
air′ly, *adj.* Aerial. *Obs.*
airm (ârm; ărm). Scot. var. of ARM. [of IRON.]
airn (ârn; ărn). Scot. & Ir. var.
air′o-, (âr′ō-). Erron. var. of AERO-. [-PHOBIA.]
air′pho′bi·a (âr′fō′bĭ·ȧ), *n.* See

air service. A service of a state, analogous to, or a part of, the military and naval services, charged with the operation of aircraft.
air'ship' (âr'shĭp'), *n.* A form of mechanically driven aircraft, lighter than air, having a means of controlling the direction of its motion. The experiments of A. S. Dumont and Count von Zeppelin in 1898 were the beginnings of the development of the modern airship. Dumont flew around the Eiffel Tower in 1901. Airships are distinguished as: *rigid*, when the form is maintained by a rigid structure contained within the envelope; *nonrigid*, or *flexible*, when the form is maintained by the pressure of the contained gas; and *semirigid*, when the form is maintained by means of a rigid or jointed keel and the pressure of the contained gas.
air'–wise' (âr'wīz'), *adj.* Skillful or experienced in aerial activities, esp. aviation.
air'wom'an (âr'wo͝om'ăn), *n.* A woman who flies in an aircraft, esp. as its pilot or a member of its crew.
air wood. Air-dried wood.
air'wor'thy (-wûr'thĭ), *adj.* *Aeronautics.* Fit for operation in the air; able to bear the strains of flight, to withstand storms, etc., as an airplane. — **air'wor'thi·ness**, *n.*
air'y (âr'ĭ), *adj.; AIR'I·ER (-ĭ·ẽr); AIR'I·EST.* **1.** Relating or belonging to air; performed in air; atmospheric; high in air; aerial; as, an *airy* region.
2. Consisting of air; as, an *airy* substance.
3. Open to the free circulation of air; exposed to the air; breezy; as, an *airy* situation or room.
ai'ti·on (ī'tĭ·ŏn), *n.; pl.* AITIA (-*à*). [Gr., fr. *aitia* cause.] A tale devised to explain the origin of a religious observance.
Ait'ken·ite (āt'kĕn·īt), *n.* *Eccl. Hist.* An adherent of Robert Aitken (1800–73), who desired to introduce into the Anglican Church certain Methodist practices and views, esp. as regards conversion.
‖**ai'tu** (ī'to͞o), *n.* [Polynesian.] A god, spirit, or demon.
Ai'tu·ta'ki·an (ī'to͞o·tä'kĭ·ăn), *n.* A Polynesian of Aitutaki.
ai·wan' (ī·wän'), *n.* [Per. *aiwān* veranda, palace.] In Parthia or ancient Persia, a throne room or audience hall.
Aix (āks), *n.* [NL., fr. Gr. *aix* a water bird.] *Zool.* A genus of fresh-water ducks remarkable for their beautiful plumage. It includes the Chinese mandarin duck and usually also the wood duck of North America.





General arrangement of a rigid Airship, with cross section showing distribution of loads along the keel corridor. 1 Bow Cap; 2 Outer Cover; 3 Control Room; 4 Passenger Cabin; 5 Pneumatic Bumping Bag; 6 Main Frame; 7 Intermediate Frame; 8 Diagonal Wires; 9 Longitudinal Girders; 10 Gas Shaft; 11 Automatic Gas Valve; 12 Hand-operated Gas Valves; 13 Gas Cell; 14 Power Car; 15 Propeller; 16 Horizontal Fin; 17 Vertical Fin; 18 Rudder; 19 Elevator; 20 Officers' Room; 21 Captain's Cabin; 22 Crew's Quarters; *B* Ballast; *C* Cargo; *E* Emergency Ballast; *F* Fuel; *P* Provisions; *R* Reserve Oil.

air'sick' (âr'sĭk'), *adj.* Affected with aerial sickness (which see). — **air'sick'ness**, *n.*
air'–slake' (-slāk'), **air'–slack'** (-slăk'), *v. t.* To slake by exposure to the air; as, *air-slaked* lime. See 1st LIME, 2.
air space. An enclosed space for or containing air; as: **a** The space, as in a room, available for air for respiration. **b** A space between walls or in a wall to protect against dampness. **c** An air cavity in the body of a bird. **d** The space between the powder charge and projectile in firearms. **e** The space between boiler tubes. **f** *Bot.* A cavity containing air in the cellular tissue of plants.
air'space' (âr'spās'), *n.* The space lying above the earth or above a certain area of land or water. Specif., *Aviation*, space above the surface of the earth and its appurtenances, as vegetation, structures, or the like. *Navigable airspace* is that above the minimum safe altitudes of flight as legally prescribed.
air speed. The speed of an aircraft with relation to the air, as distinguished from speed relative to the earth.
air'–speed' indicator *or* **meter.** An instrument mounted on an aircraft to indicate its air speed. Cf. PRESSURE NOZZLE, VENTURI TUBE, ANEMOMETER.
air'–spray', *adj.* Applied, or used to apply, in the form of a spray by means of air under pressure; as, *air-spray* lacquer or equipment.
air station. *Aeronautics.* A stopping place for aircraft, equipped with facilities for receiving and servicing the craft.
air stone. An aerolite.
air stove. A stove having air passages, or an air chamber, from which heated air is discharged into the room.
air stream. *Physics.* A body of air in motion relative to a solid body, whether the air moves past the solid body, or the solid body moves through the (otherwise) quiet air.
air survey. A survey made as the result of photographs taken from aircraft.
air system. A system of mechanical refrigeration in which cold air is compressed, then cooled, and permitted to expand, thus acting as the refrigerating agent.
airt (ârt; ārt), **airth** (ârth; ārth), n. [Gael. & Ir. *āird.*] *Chiefly Scot.* Point of the compass; direction. — *v. t.* To direct; guide. — *v. i.* To turn; make one's way.
air thread. A thread of silk, floating in the air, spun by a ballooning spider; a thread of gossamer.
air'tight' (âr'tīt'; 66), *adj.* **1.** So tight as to be impermeable to air; as, an *airtight* cylinder.
2. Hence, figuratively, impenetrable, esp. by an opponent; also, permitting no opportunity for an opponent to score; as, an *airtight* argument or defense; playing *airtight* football. — **air'tight'ly**, *adv.* — **air'tight'ness**, *n.*
air'tight' stove. A sheet iron stove the draft of which can be almost entirely shut off. *U. S.*
air trap. A trap for shutting off or carrying off foul air or gas from drains, sewers, etc.; a stench trap.
air trumpet. *Zool.* One of a pair of short breathing tubes that project from the thorax of mosquitoes and allied insects.
air'twist' (âr'twĭst'), *n.* A spiral of air in the stem of a glass vessel, formed during the process of blowing and manufacture. — **air'twist'ed**, *adj.*
air vent. An air drain.
air vesicle. **a** *Bot.* A greatly inflated air space, often occurring in aquatic plants, and serving as an aid in floating. **b** *Anat.* An alveolus in a lung.
air volcano. *Phys. Geog.* An eruptive opening from which large volumes of gas are discharged, along with mud and stones. It is not properly volcanic. Cf. MUD VOLCANO.
air'ward (âr'wẽrd), **air'wards** (-wẽrdz), *adv.* Toward the air; upward. *Keats.*
air'way' (âr'wā'), *n.* **1.** A passage for a current of air, often underground, as in a mine.
2. A designated or traveled way or route along which aircraft may ply from airport to airport, esp. one equipped with navigational aids.
air'way'man (-măn), *n.* *Mining.* A man who keeps airways in repair.
air well. A court, enclosed within walls and open at the top, for supplying air to windows.

4. Resembling air in elasticity or lightness; airlike; as, *airy* garments. "An *airy* spirit." *Shak.*
5. Hence: **a** Light in movement or manner; esp., sprightly; vivacious; merry; as, an *airy* tread or song. **b** Delicate and graceful as air; ethereal; as, *airy* music.
6. Resembling air in its immaterial character; without reality or solid foundation; empty; trifling; visionary; as, *airy* nothings; *airy* notions. "*Airy* fame." *Shak.*
7. Hence, flippant; as, *airy* critics; *airy* contempt.
8. Having an affected manner; being in the habit of putting on airs; affectedly grand. *Now Colloq.*
9. Having a hot and moist complexion. Cf. HUMOR, *n.*, 2.
Syn. — Insubstantial, light, delicate. **Ant.** — Heavy.
airy sign. A zodiacal sign with a hot and moist complexion. The airy signs are Gemini, Libra, and Aquarius.
Air'y's spi'ral (âr'ĭz). [After G. B. *Airy*, Eng. astronomer.] An optical phenomenon, consisting of a four-rayed spiral, exhibited by sections of right-handed and left-handed quartz when placed together in a polariscope.
air zone. The air space immediately above the land or waters of belligerent nations, considered in international law as nonneutral.
ais'chro·la·trei'a (īs'krō·lȧ·trī'ȧ), *n.* [Gr. *aischros* obscene + *-latreia*. See -LATRY.] Worship of filth; cult of the obscene.
aise'weed' (āz'wēd'), *n.* [Possibly fr. F. *aise* ease.] The goutweed.
aisle (īl), *n.* [ME. *ile*, *ele*, fr. OF. *ele* (F. *aile*) wing, wing of a building, fr. L. *ala* wing, armpit; akin to L. *axilla* armpit, AS. *earl* shoulder, ON. *öxl*, G. *achsel*. The pron. and spelling seem to be due to confusion with *isle*, and the meaning to be influenced by *alley*. See AXLE.] **1.** *Arch.* **a** A lateral subdivision of a church or other building where the main part is divided longitudinally by rows of columns or piers. It is parallel to, or concentric with, the middle subdivision (nave, or corresponding part of choir and transept), which it flanks, or surrounds, as in an apse. **b** By extension, a nave; as, a church with three *aisles*; the center *aisle*. **c** Also (perhaps from confusion with *alley*), a passage into which the pews of a church or seats of an assembly room, as a theater, open.
2. An aislelike space or passage not within a building.
Green *aisles* between the pines. *J. A. Symonds.*
aisled (īld), *adj.* Having an aisle or aisles; also, situated within an aisle.
aisle seat. A seat next to an aisle.
ais'ling (ĭsh'lĭng), *n.* [Ir.] **a** A dream; a vision. **b** A poetical or dramatic description or representation of a vision.
A'ïs·sa'oua (ä'ē·sä'wä), *n.* See ISAWA.
Ais'sor (ī'sôr), *n.* A people in parts of Asiatic Turkey and in Persia, calling themselves Syrians. They are believed to be descended from the Chaldeans. Called also *Afshar*, *Aushar*, *Avshar*, *Awshar*.
aist·eoir' (īsht·yôr'), *n.* [Ir.] An actor. *Irish.*
A'ïs·top'o·da (ā'ĭs·tŏp'ō·dȧ), **A'ïs·top'o·des** (-dēz), *n. pl.* [NL., fr. Gr. *aïstos* unseen + *pous*, *podos*, foot.] *Paleontol.* A group of extinct Carboniferous and Permian stegocephalian amphibians having a snakelike body and no limbs.
ait (āt), n. [ME. *eit*, *eyt*, appar. fr. AS. *īggath*, *īgeoth*, fr. *īg.* See ISLAND; cf. EYOT.] An islet in a river or lake; an eyot. *Eng., Chiefly Dial.*
ait (āt), *n.; pl.* AITS (āts), AITIS (ā'tĭs). Oat. *Scot.*
aitch (āch), *n.; pl.* AITCHES (āch'ĕz; -ĭz; 119). [See H.] The letter *h*, *H*. — *adj.* Having the shape of capital H.
aitch'bone' (āch'bōn'), *n.* Also **edge'bone'** (ĕj'bōn'). [From *nachebone*, fr. ME. *nache*, *nage*, fr. OF. *nache*, *nage*, fr. (assumed) VL. *natica*, fr. L. *natis* buttock. For loss of *n*, cf. 2d ADDER. See NATES; cf. NATCH.] The bone of the rump; also, the cut of beef containing this bone.
aitch'less (-lĕs; -lĭs; 119), *adj.* Dropping or lacking initial *h*'s.
ai·te'sis (ī·tē'sĭs), *n.* [Gr. *aitēsis.*] *Eastern Ch.* Any series of short connected prayers; sometimes, specif., a kind of litany, as the irenica (see IRENICON).
ai·thoch'ro·i (ī·thŏk'rō·ī), *n. pl.* [NL., fr. Gr. *aithos* dark, burned + *chroa* skin, complexion.] *Anthropol.* People of dark, red-brown color.

ai'zle (ī'z'l; ā'z'l), *n.* [ME. *isel*, fr. AS. *ysel*, *ysle.*] A spark; an ember; a particle of soot. *Now Chiefly Scot.*
A'i·zo·a'ce·ae (ā'ĭ·zō·ā'sē·ē), *n. pl.* [NL., prob. fr. Gr. *aei* always + *zōos* alive.] *Bot.* A family of herbs or small shrubs (order Chenopodiales), the carpetweed family. They have solitary or cymose flowers and capsular fruit. *Mollugo* is the carpetweed; *Mesembryanthemum* is the fig marigold. — **a'i·zo·a'ceous** (-shŭs), *adj.*
A'i·zo'on (ā'ĭ·zō'ŏn), *n.* [NL.] *Bot.* A small genus of low plants, typifying the family Aizoaceae, found in Africa, Australia, and the Mediterranean region. Some are cultivated for their yellow flowers or silvery foliage.
a·ja'ja (ȧ·yä'yä), *n.* [NL. *ajaja*, Sp. *ajaja*, *aiaia*, of Tupian, Cariban, or Arawakan origin; cf. Tupi *aiaja*, *ajaja*, Galibi *ayaya*, Arawak *ayayá.*] The roseate spoonbill. In form **A·ja'ia** (ȧ·jā'yȧ) it is the generic name of that bird.
A·ja'nen fir (ȧ·yä'nĕn). [From *Ayan*, seaport of eastern Siberia.] The Yeddo spruce.
a·jan'gle (ȧ·jăng'g'l), *adj.* Jangling.
a·jar' (ȧ·jär'), *adj.* [ME. *on char* on the turn, fr. AS. *cerr*, *cyrr*, turn. See CHARE.] Slightly opened; — esp. of doors.
a·jar', *adj.* [*a-* + *jar.*] In a state of discord; out of harmony; as, he is *ajar* with the world.
a'ja·ri' (ä'zhȧ·rē'), *n.* = TIMBO, 2. *Amazon Valley.*
A·ja'ta·sa'tru (ȧ·jä'tȧ·shŭt'ro͞o), *n.* [Skr. *Ajātaśatru.*] A king of Magadha in the time of the Buddha.
A'jax (ā'jăks), *n.* [L., fr. Gr. *Aias.*] **1.** The son of Telamon, and one of the Greek heroes in Homer's *Iliad*. He was of great stature and next to Achilles in prowess and beauty. He killed himself out of vexation because the armor of Achilles was awarded to Ulysses.
2. The swiftest of the Greeks before Troy, except Achilles; — called specif. **Ajax the Less.** He violated the shrine of Athena by tearing away Cassandra.
3. A tragedy by Sophocles, dealing with the death of Ajax, son of Telamon.
a·jax' (ȧ·jăks'), *n.* Jocular for JAKES. *Obs.*
Ajax butterfly. The zebra swallowtail.
Ajax powder. An explosive, used in coal mining, consisting chiefly of nitroglycerin, potassium perchlorate, ammonium oxalate, and wood meal.
‖**a·jen'jo** (ä·hān'hō; 162), *n.* [Sp.] Absinthe.
a'jhar (ä'jär), *n.* [Assamese *ājār.*] = BLOODWOOD **c**.
‖**a·ji'** (ä·hē'; 162), *n.* [Sp., fr. Taino *axi.*] A plant of the genus *Capsicum*. *Sp. Amer.*
a·ji'vi·ka (ä·jē'vĭ·kȧ), *n.* [Skr. *ājīvika.*] A religious mendicant of a sect founded by Goshala, flourishing in the time of Buddha and Mahavira but now extinct.
a·jog' (ȧ·jŏg'), *adj.* Jogging; on the jog.
a·joint' (ȧ·joint'), *adj.* **a** On a joint or pivot. **b** Jointed; supple. *Both Rare.*
‖**a·jon'jo·li'** (ä·hōn'hō·lē'; 162), *n.* [Sp.] Sesame.
‖**à jour'** (ȧ zho͞or'). [F.] Pierced; showing light through; — said of carving, metalwork, drawn work, etc., where the background is pierced or removed, or where it is translucent.
aj'o·wan (ăj'ō·wăn), *n.* [Prob. native name.] The fruit of the plant *Carum copticum*, used both as a medicine and as a condiment. An oil, **ajowan oil** (see OIL, *Table I*), containing thymol, is extracted from it. Called also *Javance seed*, *Javanese seed*, and *ajava*.
Aj'ru·mi'ya (äj'ro͞o·mē'yä), *n.* [Ar. *Ajrūmīyah*, fr. *Ājurrūmīyah* pert. to *Ājurrūm.*] The title of a widely used Arabic grammar, by ibn-Ajurrum, who died in Fez, 1323.
Aj'u·ga (ăj'o͞o·gȧ), *n.* [NL., fr. *a-* not + L. *jugum* yoke; — in ref. to the apparent absence of upper corolla lip.] *Bot.* A large genus of herbs of the mint family (Lamiaceae). *A. reptans* is the common bugle.
a·jut'ment (ȧ·jŭt'mĕnt), n. [See JUT.] A jutting out; projection.
A'ka (ä'kä), *n.* **a** One of a hill tribe north of Assam. **b** Their language. See INDO-CHINESE LANGUAGES, *Table*.
a'ka (ä'kä), n. [Maori.] Any of several species of woody vines of the genus *Metrosideros*. *N. Z.*
‖**a·ka'a·ka'i** (ä·kä'ä·kä'ē), n. [Hawaiian.] A stout European bulrush (*Scirpus lacustris*) adventive in Hawaii, and used for making mats, baskets, etc.

air'-shy' (âr'shī'), *adj.* See SHY. **air'some**, *adj.* Airy. *Obs.* **A·i'rus** (ȧ·ī'rŭs). *Bib.* **air'-wise'ness**, *n.* See WISE. **air'y** (âr'ĭ). Dial. var. of ARY. **aisle'less**, *adj.* See -LESS. **aitch'piece'**, *n.* = H PIECE. **ait'en** (āt'n). Scot. var. of OATEN. **aith**, **aithe** (āth). Scot. & N. of Eng. vars. of OATH. **Ai'ther** (ī'thẽr). Var. of AETHER. **ai'ti·o-**. Var. of AETIO-. **ai'ti·ol'o·gy** (ī'tĭ·ŏl'ō·jĭ, ā'-), *n.* = ETIOLOGY. *Obs.* **ai'ti·o·trop'ic**. See AETIO-. **ait'meal'** (āt'mēl'). Scot. var. of OATMEAL. **ai'ver** (ā'vẽr). Scot. var. of AVER, horse. **Ai'vi·lir'miut** (ā'vĭ·lēr'mūt), *n.* [See ESKIMO.] **ai'wain** (ī'wān). Var. of AJOWAN. **Aix'-la-Cha'pelle'** (ĕks'lȧ·shȧ'pĕl', ĕs'-), *n.* See CONGRESS, *n.*, 3; TREATY, *Table*. **A'jah** (ā'jȧ). *Bib.* **Aj'a·lon** (ăj'ȧ·lŏn). *Bib.* **aj'a·va** (ăj'ȧ·vȧ), *n.* = AJOWAN. **a·jee'** (ȧ·jē'). Var. of AGEE. **aj'u·tage**. Var. of ADJUTAGE. **ak** (äk), *n.* [Hind. *āk.*] = MUDAR.

TYPES OF NAVAL VESSELS

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1. U.S.S. New Mexico, *Battleship*
2. U.S.S. Indianapolis, *Heavy Cruiser*
3. U.S.S. Tulsa, *Gun Boat*
4. U.S.S. Guam, *River Gunboat*
5. U.S.S. Saratoga, *Aircraft Carrier*
6. H.M.S. Renown, *British Battle Cruiser*
7. H.M.S. Delhi, *British Light Cruiser*
8. H.I.J.M.S. Nagato, *Japanese Battleship*
9. H.I.J.M.S. Iwate, *Japanese Cruiser*
10. Duquesne, *French Cruiser*
11. Karlsruhe, *German Cruiser*

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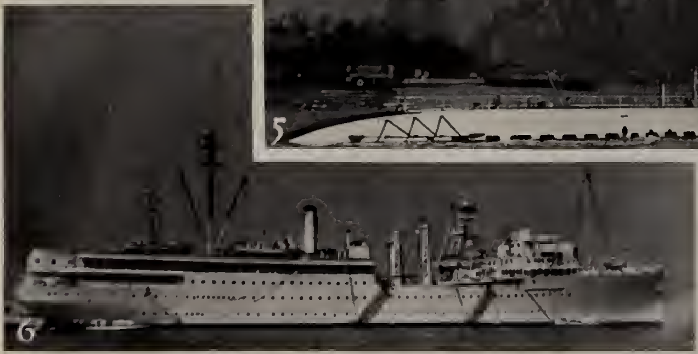

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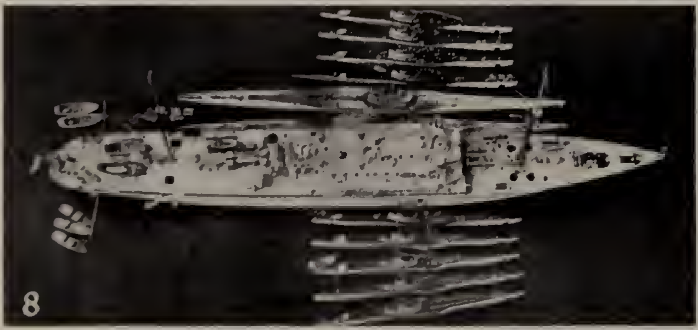

U. & U.

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1. U. S. S. West Virginia, *Battleship*
2. U. S. S. Milwaukee, *Light Cruiser*
3. U. S. S. Pruitt, *Destroyer*
4. U. S. S. Lexington, *Aircraft Carrier*
5. U. S. S. Nautilus, *Submarine*
6. U. S. S. Medusa, *Repair Ship*
7. U. S. S. Henderson, *Transport*
8. U. S. S. Holland, *Submarine Tender*
9. U. S. S. Relief, *Hospital Ship*
10. U. S. S. Quail, *Mine Sweeper*
11. U. S. S. Whitney, *Destroyer Tender*

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5. *Meat Packing.* The section of the plate below the short ribs.
6. *Ordn.* An eye on the underside of an old-time carronade for securing it to a carriage.

na′veled (nā′vĕld), *adj.* **1.** Located in the center. *Rare.*
2. Furnished with a navel or navellike knobs. *Rare.*

navel orange. A type of orange in which the fruit encloses a small secondary fruit, the rind showing on the exterior a navellike pit at the apex. They are usually seedless, or nearly so, and are much grown in California. The type originated in Brazil.

navel pipe. *Naut.* = CHAIN PIPE **a**.

navel point. *Her.* = NAVEL. See ESCUTCHEON, 1.

na′vel·wort′ (nā′vĕl·wûrt′), *n.* **a** A European succulent herb (*Cotyledon umbilicus*) having round, peltate leaves with a central depression. **b** Venus's-navelwort.

na′vew (nā′vū), *n.* [OF. *navel, naveau,* dim. fr. L. *napus* navew.] = WILD TURNIP **a**; also, the rape.

nav′i·cel′la (năv′ĭ·sĕl′ȧ), *n.* [LL., dim. of *navis* ship.] *Art.* Any vessel-shaped ornamental object, as one for holding incense.

na·vic′u·la (nȧ·vĭk′ū·lȧ), *n.*; *pl.* -LAE (-lē). [L., a small ship.] **1.** *Eccl.* An incense boat.
2. [*cap.*] *Bot.* The largest genus of diatoms, having a lanceolate, usually free-floating, frustule covered with minute striae. The genus typifies a family, **Na·vic′u·la′ce·ae** (-lā′sē·ē), of the group Pennatae.

na·vic′u·lae·form′ (nȧ·vĭk′ū·lē·fôrm′), *adj. Bot.* Navicular.

na·vic′u·lar (nȧ·vĭk′ū·lẽr), *adj.* [L. *navicularius,* fr. *navicula,* dim. of *navis* ship.] **1.** Of, pertaining to, or resembling a boat or ship.
2. Shaped like a boat; cymbiform; scaphoid.
3. *Bot.* Resembling a diatom of the genus *Navicula.*

na·vic′u·lar (nȧ·vĭk′ū·lẽr), **na·vic′u·la′re** (-lā′rē), *n. Anat.* A bone having a fancied resemblance to a boat, as the lateral bone on the radial side of the proximal row of the carpus. See CARPUS **a**.

na·vic′u·loid (nȧ·vĭk′ū·loid), *adj.* Naviform.

na′vi·form (nā′vĭ·fôrm), *adj.* [L. *navis* ship + *-form.*] *Bot.* Boatshaped; navicular.

nav′i·ga·ble (năv′ĭ·gȧ·b′l), *adj.* [F. or L.; F. *navigable,* fr. L. *navigabilis.* See NAVIGATE.] **1.** Capable of being navigated; deep enough and wide enough to afford passage to vessels; as, a *navigable* river. In the United States, for the purpose of defining the rights of ownership, some States have adopted the common-law test of flow of the tide, others that of actual navigability. For determining the right of the public to the use of a body of water as a public highway, however, the test in the United States is as to whether the water is navigable in fact or not. Technically, at the common law of England only those waters, whether rivers or not, are called *navigable* that ebb and flow with the tide, the bed of all navigable waters belonging to the crown and the right of traffic, fishing, etc., to the public; but the public have no common-law right to rivers and streams above the ebb and flow. By prescription, or act of Parliament, however, the larger and more important rivers have been opened to public navigation.

Those rivers must be regarded as public *navigable* rivers in law which are *navigable* in fact. And they are *navigable* in fact when they are used, or are susceptible of being used, in their ordinary condition as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water. 10 *Wall.* 557, 563.

2. Capable of being navigated or steered, as a balloon.
3. *Obs.* **a** Capable of being reached by navigable water; as, a *navigable* town. **b** Nautical. **c** Naval.
— **nav′i·ga·bil′i·ty** (năv′ĭ·gȧ·bĭl′ĭ·tĭ), *n.* — **nav′i·ga·ble·ness,** *n.* — **nav′i·ga·bly,** *adv.*

nav′i·gant (năv′ĭ·gănt), *adj.* [L. *navigans,* pres. part.] Navigating; voyaging. *Rare.*

nav′i·gant, *n.* [F.] Navigator. *Obs.*

nav′i·gate (năv′ĭ·gāt), *v.*; NAV′I·GAT′ED (-gāt′ĕd; -ĭd; 119), NAV′I·GAT′ING (-gāt′ĭng). [L. *navigatus,* past part. of *navigare,* v. t. & i., fr. *navis* ship + *agere* to move, direct. See NAVE of a church; AGENT.] *Intransitive:* **1.** To journey by water; to go in a vessel; to sail or manage a vessel; to use the waters as a highway for commerce or communication; ply.

The Phoenicians *navigated* to the extremities of the Western Ocean. *Arbuthnot.*

2. Hence, to direct one's course through any medium; to steer; esp., to operate an airplane or airship.
——, *Transitive:* **1.** To pass over in vessels; to sail over or on; as, to *navigate* the Atlantic; — said also of vessels; by extension, to direct one's course through (any medium).
2. To steer, direct, or manage in sailing; to conduct (a vessel) upon the water by the art or skill of seamen; hence, to operate, steer, control the course of (an airplane or airship.)

nav′i·gat′ing of′fi·cer (-gāt′ĭng). A navigator of a vessel, an airship, or the like.

nav′i·ga′tion (-gā′shŭn), *n.* [F. or L.; F. *navigation,* fr. L. *navigatio.*] **1.** Act or practice of navigating.
2. a The science or art of conducting ships or other vessels on the water from one place to another, including, more especially, the method of determining a ship's position, course, distance passed over, etc., on the surface of the globe, by the principles of geometry and astronomy, including also reference to landmarks and aids to navigation. **b** The management of sails, rudder, etc.; the mechanics of traveling by water; seamanship.
3. Science or art of conducting airplanes, etc., from place to place, esp. through the use of calculations as to position and direction, etc.
4. Hence: **a** Science or art of, or skill in, handling aircraft. **b** *Now Rare.* A voyage by water. **c** Ships in general; shipping; also, *Obs.,* maritime commerce. *Shak.* **d** *Obs.* A navigable passage. **e** *Obs. exc. Dial.* An artificial waterway or inland channel or canal.

navigation act *or* **law.** An act regulating navigation or shipping; specif. [*caps.*]: *Eng. Hist.* Any of a series of acts of Parliament, beginning with 1645, having for their objects the protection of the shipping of Great Britain and her colonies. They and other navigation laws were finally repealed in 1849.

nav′i·ga′tion·al (năv′ĭ·gā′shŭn·ăl; -′l), *adj.* Of, pertaining to, or used in, navigation.

nav′i·ga′tor (năv′ĭ·gā′tẽr), *n.* [L. Cf. NAVVY.] **1.** One who navigates or sails; esp., one who directs the course of a ship, or one skillful in the art of navigation; specif., on war vessels, an officer who is, while holding the position, particularly charged with the navigation of the ship; also, a book which teaches the art of navigation, as, Bowditch's *Navigator.* In the United States navy the navigator is usually the officer third or fourth in command.
2. One who handles the controls of, or directs the operations of, an aircraft.
3. A laborer engaged in digging, etc., on a canal, or navigation (see NAVIGATION, 4 **e**), or, later, in any similar earthwork; — now generally abbreviated to *navvy. Eng.*

na·vig′er·ous (nȧ·vĭj′ẽr·ŭs), *adj.* [L. *naviger,* fr. *navis* ship + *gerere* to bear.] Capable of floating vessels.

na′vi·pen′du·lum (nā′vĭ·pĕn′dū·lŭm), *n.* [L. *navis* ship + *pendulum.*] *Naval Arch.* A pendular device to reproduce the effect of waves on a ship and used esp. with a view to reduce rolling in designing battleships. — **na′vi·pen′du·lar** (-lẽr), *adj.*

na′vite (nā′vīt), *n.* [From L. *Nava* Nahe River, Germany.] *Petrog.* A coarse-grained olivine-basalt with phenocrysts of altered olivine and a little augite and basic plagioclase in a holocrystalline groundmass of labradorite and augite.

nav′vy (năv′ĭ), *n.*; *pl.* NAVVIES (-ĭz). [Abbr. fr. *navigator.*] **1.** An unskilled, or common, laborer, esp. one engaged on excavating or construction work; a navigator (see NAVIGATOR, 3). *Eng.*
2. A machine for excavating earth; a steam shovel.
3. *Mining.* A barer. *Eng.*

nav′vy, *v. i.* To work as a navvy. — *v. t.* To excavate. *Both Chiefly Eng.*

na′vy (nā′vĭ), *n.*; *pl.* NAVIES (-vĭz). [ME. *navie,* fr. OF. *navie* ship, fleet, fr. (assumed) VL. *navia,* fr. L. *navis* ship. See NAVE of a church.] **1.** A fleet of ships; an assemblage of vessels, or so many as sail in company. *Archaic.* "The *navy* also of Hiram, that brought gold from Ophir." 1 *Kings* x. 11.
2. The war vessels belonging to a nation, considered collectively; as, the *navy* of Italy; also, rarely, the merchant vessels of a nation collectively. Until about the middle of the 19th century the principal classes of war vessels were ships of the line, frigates, and gun vessels. To these correspond the modern battleships, cruisers, and gunboats. The torpedo craft are a new development. Modern navies include three broad classes: combatant vessels for service with the fleet; combatant vessels for special service; and auxiliary vessels. **a** Combatant vessels for service with the fleet are: (1) ***Battleships***: Heavy armor on sides, turrets, conning tower, and uptakes, lighter armor on protective decks; heavy guns in turrets, lighter guns in broadsides, antiaircraft guns; moderate speed; displacement between 22,000 and 34,000 tons. (2) ***Battle cruisers***: Like battleships except moderate armor and high speed. (3) ***Armored cruiser***: See CRUISER, 2 **b**. (4) ***Cruisers*** and ***light cruisers***: Little or no armor, some protection being obtained by using heavy hull plating; guns from 5-inch to 8-inch caliber, 8-inch and sometimes 6-inch being mounted in enclosed mounts, antiaircraft guns; high speed; displacement from 3,750 to 10,000 tons. (5) ***Aircraft carriers***: Flush flying decks permitting planes to land and take off; high speed; antiaircraft guns, and sometimes guns up to 8-inch caliber; displacement from 13,000 to 33,900 tons. (6) ***Destroyers***: No armor; torpedoes launched from above-water tubes; guns up to 5-inch caliber; high speed; displacement 600 to 1,700 tons. (7) ***Fleet submarines***: Torpedoes; 5″–6″ guns; high surface speed, good submerged speed; good seagoing qualities; displacement from 1,500 to 2,500 tons. **b** Combatant vessels for special service include: (1) ***Cruisers*** (2d line): utilized for protection of national interests, etc. (formerly called *protected* and *unprotected cruisers* — see CRUISER, 2 **b**). (2) ***Gunboats***: No armor; light guns; light draft; moderate speed; good fuel capacity. (3) ***River gunboats***: Specially constructed for duty such as up the Yangtse River in China. (4) ***Submarines*** (1st line): 3-inch to 4-inch guns; torpedoes; moderate speed on surface, good speed submerged; displacement from 800 to 950 tons. **c** Auxiliary vessels include: (1) ***Tankers***. (2) ***Repair ships***. (3) ***Hospital ships***. (4) ***Destroyer*** and ***submarine tenders***. (5) ***Mine sweepers***. (6) ***Tugs***.
3. [*usually cap.*] The naval establishment of a nation, including yards, shops, stations, men, ships, offices and officers, etc.; the complete organization for naval warfare.
4. *Obs.* **a** Shipping. **b** A ship. **c** Lordship of the sea.
5. a The color navy blue. **b** The color Oxford blue. **c** The color marine blue.
6. A kind of chewing tobacco.

navy agent. **a** In Great Britain, an attorney who acts for naval officers in financial matters connected with the service, such as distribution of prize money. **b** Formerly, in the United States Navy, a disbursing officer.

navy bean. A white-seeded variety of the common kidney bean, grown esp. for its nutritious seeds.

navy bill. **a** A bill drawn on or by the British Admiralty for naval purposes. **b** *Now Rare.* A bill drawn by a paymaster of a United States war vessel abroad.

navy blue. **a** A color, reddish-blue in hue, of low saturation and low brilliance. It is of lower brilliance than indigo. Called also *navy.* **b** Marine blue. **c** By extension, any color of low or very low brilliance, of a hue varying from reddish-blue to greenish-blue, and of low or medium saturation. Called also *navy.* Cf. COLOR. — **na′vy–blue′,** *adj.*

navy board. A government board having control of the navy; specif. [*caps.*], the British Admiralty.

Navy Cross. See MEDAL, *Plate.*

Navy Department. See DEPARTMENT, 4.

navy green. The color light chrome green. See CHROME GREEN, 5.

navy league. An association of citizens for promoting the interests of the navy. — **navy leaguer.**

Navy List. **a** An official list of the officers of the British Navy, issued quarterly. **b** A list of the officers of the United States Navy on active duty, issued bimonthly.

navy plug. Strong, dark-colored plug tobacco.

Navy Register. An official list of the officers and ships of the United States Navy, issued annually.

navy yard. A shore station for the navy, with appliances for building, repairing, and equipping war vessels.

na·wab′ (nȧ·wôb′), *n.* [Hind. *navāb.* See NABOB.] *India.* **1.** A deputy ruler or viceroy under the Mogul government; also [*cap.*], the title of a Moslem prince, inferior only to *Nizam.*
2. [*cap.*] A courtesy title (sometimes bestowed by the government without office). *India.*
3. A rich, retired Anglo-Indian; a nabob.

nay (nā), *adv.* [ME. *nay, nei,* fr. ON. *nei,* fr. *ne* not + *ei* ever. See NO, *adv.*; AYE ever.] **1.** No; — a negative answer to a question asked or a request made, now superseded by *no.* See YES.

And eke when I say "ye," ne say not "*nay.*" *Chaucer.*

☞ Before the time of Henry VIII *nay* was used to answer simple questions, and *no* was used when the form of the question involved a negative expression; *nay* was the simple form, *no* the emphatic. *Skeat.*

2. Not this merely, but also; not only so, but; — used to mark addition or substitution of a more explicit or emphatic phrase, and thus may be interchanged with *yea.* "Were he my brother, nay, my kingdom's heir." *Shak.*
— ***or nay.*** Or not; as, whether they will *or nay.* *Obs.*
— ***to say nay.*** **a** To refuse; also, to forbid. "I'll frown and be perverse and *say* thee *nay.*" *Shak.* **b** *Obs.* To make denial or express dissent. — ***without nay.*** Beyond denial; assuredly. *Obs.*

nay, *n.* **1.** A denial or refusal; also, a prohibition.
2. A negative reply or vote; hence, one who votes no.
— ***it, there, etc., is no nay.*** It cannot be denied. *Obs.*

nay, *adv.* [*ne* not + *aye* ever.] Never. *Obs.*

nay, *v. t. & i.* [OF. *neier* (F. *nier*), fr. L. *negare;* confused with *nay* no.] To refuse; deny. *Obs.*

nay, *n.* [Ar. (fr. Per.) *nāy.*] *Music.* A flute, used in Moslem lands, played by blowing across the end.

na·yaur′ (nȧ·yôr′), *n.* [Cf. NAHOOR.] A wild sheep (*Ovis ammon hodgsoni*) of Tibet.

nay′say′ (nā′sā′), *n.* [*nay,* adv. + *say,* n.] A refusal; denial. — *v. t. & i.* To refuse. — **nay′say′er** (-sā′ẽr), *n.*

nay′ward (nā′wẽrd), *n.* The negative; refusal to agree. *Rare.*

nay′word′ (nā′wûrd′), *n.* *Now Rare.* **a** A watchword; a signal word. **b** A byword; a proverb of reproach.

Naz′a·rate (năz′ȧ·rāt), *n.* Nazariteship.

Naz′a·rene′ (năz′ȧ·rēn′), *adj.* [LL. *Nazarenus,* fr. Gr. *Nazarēnos.*] **1.** Of or pertaining to Nazareth. *Rare.*
2. Of or pertaining to the Nazarenes.

Naz′a·rene′, *n.* **1.** A native or inhabitant of Nazareth; — applied esp. to Jesus Christ.
2. A follower of Jesus of Nazareth; a Christian.
3. *Eccl.* One of a sect of trinitarian Christians in Hungary.
4. *Painting.* Usually in *pl.* (G. *Nazarener*). One of a group of German painters, who, after their expulsion from the Vienna Academy in 1810, established themselves at Rome, and aimed at restoring Christian art to its medieval purity. The leader was Overbeck. Their works exhibit a certain naïveté, but a very primitive technique.

Naz′a·rit′an (năz′ȧ·rīt′ăn), *n.* A Nazarene, or Christian. *Rare.*

Naz′a·rite (năz′ȧ·rīt), *n.* Also **Naz′i·rite** (năz′ĭ-). [LL. *Nazaraeus,* fr. Gr. *Nazēraios,* fr. Heb. *nāzar* to dedicate, consecrate; cf. Heb. *nāzīr* one consecrated.] **1.** Among the ancient Hebrews, a consecrated person, prohibited from using wine, from cutting the hair, and from touching a corpse. Similar customs exist among the Arabs.
2. a = NAZARENE, *n.*, 1, 3, 4. **b** = *Rare.* NAZARENE, *n.*, 2.

Naz′a·rit′ic (năz′ȧ·rĭt′ĭk), *adj.* Pertaining to a Nazarite or Nazarites.

Naz′a·rit′ish (năz′ȧ·rīt′ĭsh), *adj.* Nazaritic.

naze (nāz), *n.* [See NESS.] A promontory or headland.

Na′zi (nä′tsē), *n.*; *pl.* NAZIS (-tsēz). [G., fr. *Nationalsozialistische* (*Partei*).] A member of the National Socialistic party of Germany; a Hitlerite.

na′zim (nä′zĭm), *n.* [Ar. *nāẓim* one who puts things in order.] A military viceroy or governor. *India.*

na′zir (nä′zĭr), *n.* [Ar. *nāẓir* overseer.] **a** In India, a native court official who serves processes, acts as treasurer, etc. **b** In Mohammedan countries, any of various officials. — **na′zir·ship,** *n.*

nche′ga (′nchā′gä), *n.* [Native name (Mpongwe) *shēga* grimace, acting like a monkey.] The chimpanzee.

n′–di·men′sion·al, *adj. Math.* Consisting of elements each of which is fixed and distinguished from all others by *n* determinations or co-ordinates and by no less.

ne (nē; nĕ), *adv.* [AS. *ne.* See NO.] Not. *Archaic.*

He never yet no villany *ne* said. *Chaucer.*

☞ *Ne* was formerly the universal adverb of negation. In the form *n* it was often prefixed to words as in *nacheveth* for "ne achieveth."

ne, *conj.* [See NE, *adv.*] Nor; also, or. *Archaic.* — ***ne . . . ne.*** Neither . . . nor. *Archaic.*

ne-. = NEO-.

Ne·ae′ra (nē·ē′rȧ), *n.* [L.] A name for a mistress in the poetry of Horace, Vergil, and Tibullus; — sometimes also in modern pastoral poetry, as in Milton's *Lycidas.*

neal (nēl), *adj.* [AS. *nēol, neowol, niwol.*] Deep. *Obs.*

neal (nēl), *v. t. & i.* To anneal; temper. *Obs. exc. Dial.*

Neal, Neil (nēl), *n.* [Gael. & Ir. *Niall;* cf. Gael. *niata* courageous, Ir. *nia* champion, *niadhas* valor.] Masc. proper name.

ne·al′lo·type (nē·ăl′ō·tīp), *n.* [*ne-* + *allotype.*] *Zool.* A type specimen of the opposite sex to the holotype, and collected and described later. Cf. ALLOTYPE.

Ne·an′der·thal′ (nā·än′dẽr·täl′), *adj.* *Anthropol.* Of, pertaining to, or named from, the Neanderthal, a valley in the Rhine Province, in which were found parts of a skeleton of an early type of man. The skull is characterized by extreme dolichocephaly, flat, retreating forehead, and enormous superciliary ridges. The cranial capacity is estimated at about 1,400 cubic centimeters, approximately the average for modern man. Hence, designating the **Neanderthal race,** or **man,** a species known from other remains to have been widespread in paleolithic Europe. See 1st MAN, 17.

Ne·an′der·thal′er (-ẽr), *n.* *Anthropol.* One of the Neanderthal race.

Ne·an′der·thal′oid (-täl′oid), *adj.* [*Neanderthal* + *-oid.*] *Anthropol.* Like or pertaining to the Neanderthal skull, or the type of man it represents.

ne·an′ic (nē·ăn′ĭk), *adj.* [Gr. *neanikos* youthful.] *Zool.* Youthful; immature; — said of a stage of development between the nepionic and ephebic.

neap (nēp), *adj.* [AS. *nēpflōd* neap flood, of uncert. origin; cf. Nor. dial. *næpen* scarcely, touching.] Designating, or, rarely, pertaining to, certain tides (**neap tides**), which are the lowest in the lunar month. See TIDE.

neap, *n.* A neap tide.

neap, *v. i.* Of a tide, to tend towards the lowest stage.

neap (nēp), *n.* [Cf. Nor. dial. *neip* a cleft stick.] The tongue or pole of a vehicle drawn by two animals. *U. S.*

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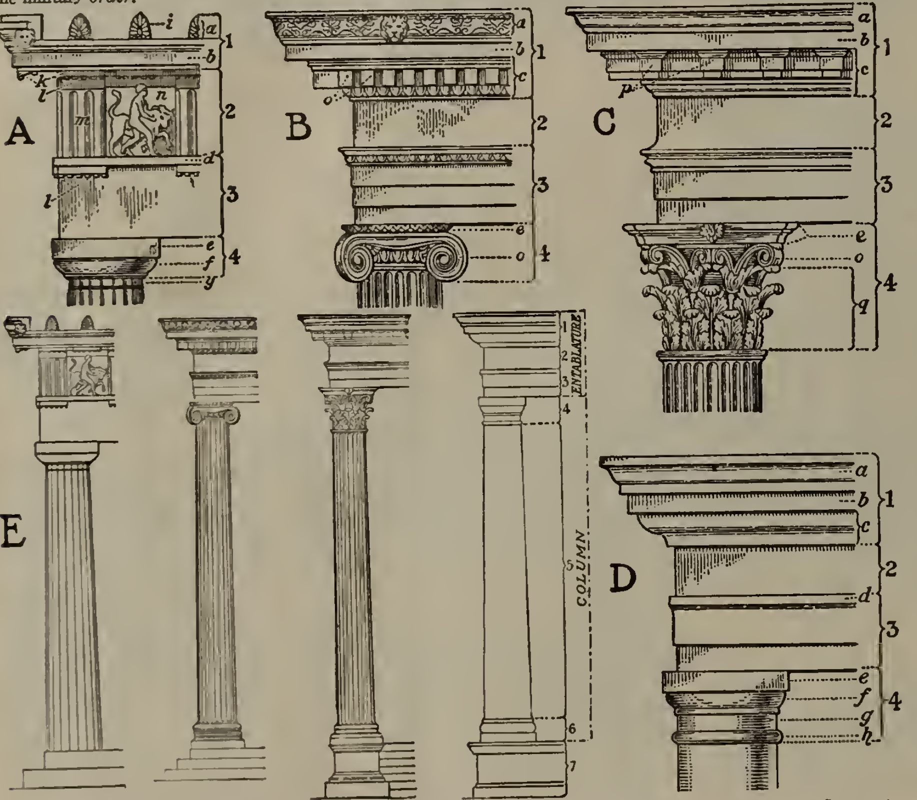
na′veld. Naveled. *Ref. Sp.*
na′vel-like′, *adj.* See -LIKE.
na′vel-shaped′, *adj.* See -SHAPED.
na·vet′, *n.* *Eccl.* = NAVICULA, 1. *Obs. & R.*
na·vet′, *n.* [F. *navet, navette,* dim. fr. L. *napus* turnip, navew.] = RAPE (the plant) **b**.
na·vette′, *n.* [F., *navicula.*] = MARQUISE, 3.
na′vey, *n.* [ONF. *navei.*] A navy; ships. *Obs.*
navigable airspace. See AIR-SPACE, *n.*
nav′i·ga·to′ry, *adj.* Pert. to navigation; nautical. *Obs.*
nav′vie. Var. of NAVVY.
naw. Dial. var. of KNOW, NO.
na·wab′ship, *n.* See -SHIP.
na·wob′. Var. of NAWAB.
nawt. Var. of NOWT. *Scot. & N. of Eng.*
naw′ther. Var. of NAUTHER.
Na′yar (nä′yär). Var. of NAIR.
Na′ya·rit′ (nä′yä·rēt′), **Na′ya·ri′ta** (-rē′tȧ), *n.* = 2d CORA, **a**.
Naz′a·re′an (năz′ȧ·rē′ăn), *n.* [LL. *Nazareus.*] = NAZARENE, *n.*
Naz′a·ren′ism (năz′ȧ·rēn′ĭz'm), *n.* See -ISM.
Naz′a·rite·ship′, *n.* See -SHIP.
Naz′a·rit·ism (-rīt·ĭz'm), *n.* See -ISM.
Na′ze·ri′ni (nä′zȧ·rē′nĭ), *n.* See ANSARIE.
Naz′i·rate, Naz′i·rite, Naz′i·rit′ic, etc. Modern equivalents of NAZARATE, etc., formed on the assumption that *Nazarite* is an improper formation. See NAZARITE, NAZARENE, *Etymol.*
ne. ✝ NA, than; NEIGH; NIGH.
nea (nā; nȧȧ). Scot. & N. of Eng. var. of NO.
nea′ger (nē′gẽr). Var. of NEGER, negro. *Obs. exc. Dial.*
neagues, neakes ✝ NIGS.
Ne′ah (nē′ȧ). *Bib.*
neale. ✝ NAIL.

16 Scottish nobles, besides royalty (*Abbr.* K.T.): 8-pointed star, charged with figure of St. Andrew, and cross; thistle flower: *Nemo me impune lacessit.* — ***Vasa, Sweden***: 1772: Gustavus III: civil merit: 8-pointed white cross with crown; oval medallion in center.—***Victorian.*** See ROYAL VICTORIAN, above. — ***White Eagle, Yugoslavia***: 1882: Milan I: commemorates establishment of kingdom of Serbia: white 2-headed eagle and crown. — ***White Elephant, Siam***: 1861: civil and military: round medallion, showing white elephant, all within wreaths, surmounted by gold pagoda crown. — ***White Rose,* Finland***: 1919: Gen. C. G. E. Mannerheim, Regent of Finland: in 8 classes, for merit: silver cross and lions, with small white rose in circle superposed. — ***William, Netherlands***: 1815: William I: military, "for valor, prudence, fidelity": white cross, laurel between arms.
2. According to medieval angelology, any of the nine grades of angels; also, any similar class of beings.
3. A rank or class in society; a group or division of men in the same social position; a specific rank in the state; also, a group of persons who, by reason of profession, special interests, or the like, are regarded as a distinct class; as, the higher and lower *orders* of society; the *order* of baronets; the military *order*.

with about twenty channelings of nearly semielliptical section and separated by sharp arrises; having no base, and a capital with the echinus — of a peculiar eccentric curve in profile — supporting a square unmolded abacus, and separated from the shaft by one or more annulets. The Doric style was prevalent in Greek temples, and in those of the Periclean age shows a remarkable blending of solidity with refinement of lines and proportions. The ***Ionic*** order has paired spiral volutes on the front and rear of its capital, with the spiral fillets continued across the face under the abacus, and the volutes united at the sides by scrolls. Its columns are generally about nine diameters high, with 24 flutings separated by fillets; they rest on bases of various styles, esp. the Attic. Its entablature has the architrave, typically in three bands, separated by a rich molding from the sculptured frieze. The ***Corinthian*** is the most ornate of the orders. Except for the capital, it is similar to the Ionic. Its capital is bell-shaped, and in typical examples is enveloped with rows of acanthus leaves, with volutes under the projecting angles of its abacus, and helices under the anthemion or other ornament at the concaved middle of the abacus. The shaft is typically fluted like the Ionic, and rests on the Attic base. The Corinthian was the latest of the Greek orders to come into favor. Its richly

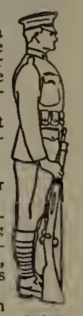


A Capital and Entablature of Greek Doric Order; *B* Same of Greek Ionic; *C* Same of Greek Corinthian; *D* Same of Tuscan; *E* Comparative View of these four Orders. 1 Cornice; 2 Frieze; 3 Architrave; 4 Capital; 5 Shaft; 6 Base; 7 Stylobate. *a* Cymatium; *b* Corona; *c* Bed Molding; *d* Taenia; *e* Abacus; *f* Echinus; *g* Gorgerin; *h* Astragal; *i* Antefix; *k* Mutule; *l* Guttae; *m* Triglyph; *n* Metope; *o* Dentils; *p* Modillions; *q* Bell, enveloped in Acanthus Foliage and Cauliculi.

4. **a** *Archaic.* A rank, row, or series. **b** Degree or grade in a series; class; as, of the *order* of five per cent.
5. Temporal or spatial arrangement of things; course of occurrence, esp. in sequence or succession.
Stand not upon the *order* of your going. *Shak.*
6. Regular arrangement; any methodical or established succession or harmonious relation; method; system; as: of material things, like the books in a library; of intellectual notions or ideas, like the topics of a discourse; of periods of time or occurrences, and the like. Hence: **a** A condition in which everything is so arranged as to play its proper part; as, "*Order* is Heaven's first law." *Pope.* **b** The fixed arrangement of phenomena, both physical and psychical; — used esp. in such phrases as: the moral *order*, *order* of nature, *order* of things, etc.
7. Customary mode of procedure; established usage or method; as, the *order* of brewing. *Obs.*, except as used of procedure in debate, conduct of deliberative bodies, etc., as, to raise a point of *order*; the speaker is out of *order*.
8. Conformity to law or decorum; freedom from disturbance; general tranquillity; public quiet; rule of law or proper authority; as, to preserve *order* in a community.
9. Condition in general; normal state; as, the house is in *order*; in good *order*; in bad *order*; out of *order*.
10. The prevailing mode of a period, as in letters or manners; also, the persons representative of such a mode; as, the new *order* in automobile designing.
The old *order* changeth, yielding place to new. *Tennyson.*
11. Short for *order of the day.*
12. Action suited to a particular end; as, they took *order* to avoid disaster. *Archaic.*
13. A rule or regulation made by competent authority; also, a command; mandate; precept; direction; as, to issue or to execute an *order*; the *orders* of a superior.
14. A direction or pass to admit to a building, a place of entertainment, or the like.
15. **a** An amount ordered as a purchase; specif., the selection of food ordered in a restaurant. **b** *Slang.* Hence, something undertaken; — esp. in the phrases *a large order*, *a tall order*.
16. A putting or keeping in order; regulation; control. *Obs.*
17. *Agric.* In curing tobacco, a condition of the leaf in which it contains sufficient moisture to be pliable and handled readily without breaking, case.
18. *Arch.* **a** A style of building. **b** *Classical Arch.* A type of column and entablature, viewed, with its forms, proportions, and mode of decoration, as the unit of a style. The Greeks used three orders, the Doric, Ionic, and Corinthian. Of these the oldest and the simplest in outline, is the ***Doric***, having its column shaft slightly convex, fluted

decorative character led to its wide use by the Romans, and by the architects of the Renaissance. To the Greek orders the Romans added the ***Tuscan***, a crude Doric with unfluted columns on bases, few and bold moldings, and general lack of ornament; and the ***Composite***, a modified Corinthian, having the capital commonly with eight volutes, adopted (with ovolo between each pair) from the Ionic and grafted on the Corinthian bell. They used the Doric and Ionic in modified forms, lacking the refinement of the Greek. Renaissance writers on architecture recognized five orders as ortbodox or classical, the (Roman) *Doric*, the *Ionic*, *Tuscan*, *Corinthian*, and *Composite*. See *Illust.* below. **c** Any columnar treatment based on the classic orders. **d** *Obs.* A system of intercolumniation (which see).
19. *Biol.* A category of classification ranking above the family and below the class. In botany, *order* or *natural order* was formerly exclusively applied to the category now more appropriately called *family*. The suffix denoting the latter is *-aceae*, while the *order* of modern taxonomists has the suffix *-ales*. Thus the order Rosales is made up of the Rosaceae (rose family), Fabaceae (pea family), Caesalpiniaceae (senna family), Mimosaceae (mimosa family), etc. *Order* and *family* are still used interchangeably by some botanists. In zoology no distinctive suffix for names of orders has been adopted.
20. *Com.* **a** The direction by which the payee or holder of negotiable paper prescribes to whom payment shall be made. A piece of commercial paper expressly made "payable to order of ——" or "to —— or his order" is negotiable; and by statute in Great Britain and in many States of the United States checks are payable to order when expressed to be payable to a particular person and not containing words prohibiting, or indicating an intention to prohibit, transfer. **b** A commission to purchase, sell, or supply goods; a direction, in writing, to furnish supplies; as, *orders* for blankets are large.
21. *Eccl.* **a** Any of the several grades or ranks of the Christian ministry. The seven orders of the Roman Catholic Church are those of priest, deacon, and subdeacon, called the ***major***, ***greater***, ***holy***, or ***sacred***, ***orders***, and those of acolyte, exorcist, lector or reader, and doorkeeper, called the ***minor orders***. Some authorities reckon the orders as eight, regarding bishop as a distinct *order* from priest. The three *orders*, or ***holy orders***, of the churches of the Anglican Communion are bishop, priest, and deacon. The *orders*, or *holy orders*, commonly recognized in the Eastern Church are: ***major orders***, bishop, priest, and deacon; ***minor orders***, subdeacon and anagnost or reader, sometimes also, singer. **b** The office, position, or status of a person in the Christian ministry; — now usually in the *pl.* and often with the epithet *holy*; as, the *order* of priesthood; to take *orders*, or *holy orders*, that is, to enter the Christian ministry; in *orders*. **c** The conferment of such office; ordination, which in the Roman Catholic Church, in the Eastern Church, and by some in churches of the Anglican Communion is held to be a sacrament conferring special grace and as such administrable only by bishops; — usually in *pl.* and often with the epithet *holy*. **d** A prescribed form of service, as for a rite; as, the *order* of confirmation.
22. *Law.* **a** In its widest sense, any command or direction of a court. **b** Usually, any direction of a judge or court entered in writing and not included in a judgment or decree.
23. *Math.* **a** Degree; thus, the *order* of a curve or surface is the same as the degree of its equation. **b** Of a determinant, the number of its columns. **c** Arrangement, as of the elements of an aggregate. **d** See BASAL UNITS.
24. *Mil.* Position of order arms (see ORDER ARMS).
Syn. — ORDER, SYSTEM. Order is formal or regular disposition or arrangement; SYSTEM implies a definite, methodical, or logical order or plan; as, "*Order* is Heaven's first law" (*Pope*); his business lacks *system*; cf. books in neat and *orderly* rows, *systematic* reading.
— ***in order.*** **a** In suitable arrangement or sequence; as, to set things *in order*. **b** In due course as the next proceedings; as, it is *in order* to adjourn. — ***in order that.*** = THAT, *conj.*, 3. — ***in order to.*** **a** *Obs.* In regard or reference to. **b** For the purpose of; as means to; — usually followed by the infinitive. — ***on the order of.*** Belonging to the class or kind of. — ***to order.*** In fulfillment of an order given; as, shoes made *to order*.

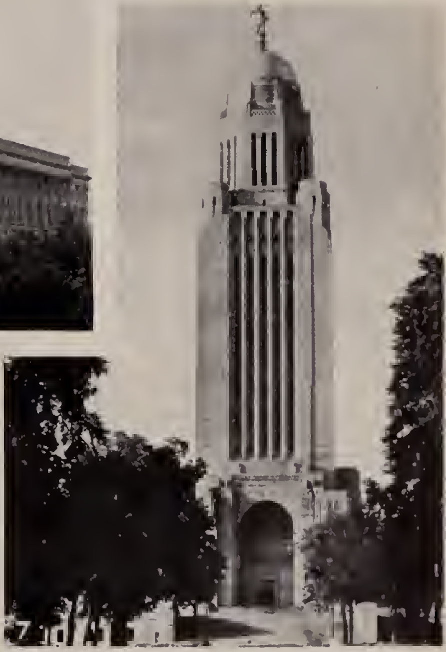
or′der (ôr′dẽr), *v.*; OR′DERED (-dẽrd); OR′DER·ING. [ME. *ordren*, fr. *ordre*. See ORDER, *n.*] *Transitive*: **1.** To put in order; to reduce to a methodical arrangement; to arrange in a series, or with reference to an end; specif., to draw up in battle array. *Archaic.*
2. Hence, to regulate; dispose; direct; rule; manage.
3. To give an order to; to command; as, to *order* troops to advance.
4. To give an order for; to secure by an order; as, to *order* a carriage; to *order* groceries.
5. *Obs. exc. Dial.* **a** To take a particular course with; to treat; to deal with. **b** To make ready; prepare. **c** To bring (a person) into order; coerce; hence, to correct; punish.
6. *Agric.* To bring (tobacco leaf) into order. See ORDER, *n.*, 17.
7. *Eccl.* To admit to holy orders; to ordain; formerly also, to admit as a member of a monastic order.
—, *Intransitive*: **1.** To put in order; to regulate; direct.
2. To give orders; to issue commands.
Syn. — See COMMAND.



Order Arms.

order arms. Of a soldier, to bring his rifle to a vertical position at his side, with the butt on the ground, of a cavalryman, to drop his sword or saber to the front with point on or near the ground; — chiefly as a command; also, the position taken at such command.
order up. At euchre, to direct an opponent dealer to take the trump into his hand and discard. Cf. ASSIST, *v. i.*, 4 **b**.
or′der·a·ble (*ȧ*·b'l), *adj.* See -ABLE.
order blank. A blank form on which an order for goods may be recorded.
or′dered (ôr′dẽrd), *part. adj.* Arranged; regulated; also, ordained. Specif., *Math.*, having its elements so arranged that if *a* and *b* are distinct, then either *a* precedes *b* or *a* succeeds *b*, and conversely, and if *a* precedes *b* and *b* precedes *c*, then *a* precedes *c*; — said of a class.
or′dered (ôr′dẽrd), *adj.* Having membership in an order. — **or′dered·ness**, *n.*
or′der·er (ôr′dẽr·ẽr), *n.* One who or that which orders.
order in council. In Great Britain, a royal order issued with and by the advice of a privy council. It does not usually have legal force unless authorized by a parliamentary act. Also, in British colonies, a similar order.
or′der·less, *adj.* See -LESS.
or′der·ly (ôr′dẽr·lĭ), *adj.* **1.** Conformed to order; in order; regular; as, an *orderly* course or plan.
2. Observant of order, authority, or rule; hence, obedient; quiet; peaceable; not unruly; as, *orderly* children; an *orderly* community.
3. Performed in good or established order; well-regulated. "An *orderly* . . . march." *Clarendon.*
4. Pertaining to, or charged with the transmission or execution of, military orders.
Syn. — Methodical, systematic, regular.
Ant. — Confused, chaotic, disorderly.
— **or′der·li·ness**, *n.*
or′der·ly, *adv.* In or according to due order; regularly; methodically; duly. *Now Rare.*
or′der·ly (ôr′dẽr·lĭ), *n.*; *pl.* -LIES (-lĭz). **1.** *Mil.* A noncommissioned officer or soldier who attends a superior officer to carry his orders, or to render other service.
2. A hospital attendant who does general work.
3. A street cleaner. *Eng.*
4. A partisan of law and order. *Rare.*
orderly bin. A street box for refuse. *Eng.*
orderly book. *Mil.* An order book. *Eng.*
orderly officer. *Mil.* **a** The officer of the day. **b** *Eng.* An orderly.
orderly room. *Mil.* A room in barracks, sometimes occupied by the *first*, formerly called *orderly*, sergeant, which contains the company, troop, or battery records and the like and is often used for company business and discipline.
orderly sergeant. The first sergeant; — formerly so called.
order of a polar discontinuity. See DISCONTINUITY, 3.
order of battle. *Mil.* **a** The particular disposition given to troops or vessels in preparation for an attack. **b** A tabular compilation by unit, showing organization, commanders, movements, etc. over an extended time.
order of contact. *Math.* A numerical measure of contact equal to or less than the number of points that coincide.
Order of DeMolay for Boys. See DEMOLAY.
Order of Geneva. The Book of Common Order. It was enlarged from the service book published at Geneva in 1556.
Order of Grammont. The order of hermit monks founded by St. Stephen. See GRANDMONTINE; BONI HOMINES.
Order of Our Lady of Mercy. See MERCEDARIAN.
Order of Our Lady of Montesa. See MERCEDARIAN.
Order of Our Lady of Mount Carmel. See CARMELITE.
Order of Purple Heart. See PURPLE HEART, ORDER OF; MEDAL, *Plate.*
Order of Reformed Cistercians. See TRAPPIST.
Order of St. Clare. See 2d CLARE, 2.
Order of the Cincinnati. The Society of the Cincinnati.
order of the day. **a** In legislative bodies, the special business appointed for a given day. **b** *Mil.* Specific orders or notices issued by a commander to his troops. **c** The prevailing custom or usage of the time.

TEN NOTABLE EXAMPLES OF AMERICAN ARCHITECTURE



1. Lincoln Memorial, *Washington, D. C.*
2. Folger Shakespeare Memorial Library *Washington, D. C.*
3. Pennsylvania Railroad Station *New York, N. Y.*
4. Library of Columbia University *New York, N. Y.*
5. The Capitol, *Washington, D. C.*
6. Daily News Building, *Chicago, Ill.*
7. Nebraska State Capitol, *Lincoln, Nebr.*
8. Trinity Church, *Boston, Mass.*
9. Harkness Memorial, Yale University *New Haven, Conn.*
10. St. Thomas Church, *New York, N. Y.*

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a minor position.] *Bot.* A genus of about 25 species of acrocarpous mosses, constituting a family, **Ar·chid'i·a'ce·ae** (är·kĭd'ĭ·ā'sē·ē). They are related to *Dicranum.*

ar'chi·e·pis'co·pa·cy (är'kĭ·ē·pĭs'kō·pȧ·sĭ), *n.* [*archi-* + *episcopacy.*] **1.** That form of episcopacy in which the chief power is in the hands of archbishops.
2. = ARCHIEPISCOPATE. *Now Rare.*

ar'chi·e·pis'co·pal (-pǎl), *adj.* Of or pertaining to an archbishop; as, an *archiepiscopal* see. — **ar'chi·e·pis'co·pal'i·ty** (-pǎl'ĭ·tĭ), *n.* — **ar'chi·e·pis'co·pal·ly**, *adv.*

archiepiscopal cross. A cross with two crossbars, the upper one shorter than the lower.

ar'chi·e·pis'co·pate (-pāt), *n.* Office, tenure, or state of an archbishop; an archbishopric.

ar'chi·er'e·us (är'kĭ·ĕr'ē·ŭs), *n.* [Gr.] *Eastern Ch.* The head of an ecclesiastical district, as a bishop, archbishop, exarch, or catholicos.

ar'chi·gen'e·sis (är'kĭ·jĕn'ē·sĭs), *n.* [*archi-* + *-genesis.*] *Biol.* Abiogenesis of the first life on earth.

ar'chil (är'kĭl), *n.* Also **or'chil** (ôr'-), **or'chal** (-kǎl). [ME. *orchell*, fr. OF. *orchel, orcheil, orseil* (F. *orseille*), fr. or akin to It. *urcella, orcello*, perh. fr. L. herba *urceolaris* a plant used for polishing glass pitchers, fr. *urceolus* jug, pitcher. Cf. ORCHIL, ORCEIN.] **1.** A blue, red, or violet dyestuff obtained from several species of lichen, esp. *Roccella tinctoria, R. fuciformis*, and *Lecanora tartarea*, by action of air and ammonia. It is found in commerce in three forms: *archil* proper, a pasty mass; *persis*, a mass of drier character; and *cudbear*, a reddish powder. See ORCEIN. A liquid extract of the dyestuff, when made from the lichens, is called **archil liquor**; when made from the paste, **archil extract**. Archil is not fast to light and is much less used than formerly.
2. Any plant which yields this dye, as the fine commercial variety of *Roccella tinctoria* called *Angola weed.*
3. Any of the colors imparted by the dye archil, which vary in hue from bluish red to reddish blue, according as the bath is acid or alkaline.

Ar'chi·lo'chi·an (är'kĭ·lō'kĭ·ǎn), *adj.* [L. *Archilochius.*] Of, pertaining to, or characteristic of, the Greek satiric poet Archilochus of the 7th century B.C., regarded as inventor of various lyric forms, and famous for bitter and vindictive lampoons. — *n.* An Archilochian verse, either: a dactylic tetrameter catalectic (–⏑⏑|–⏑⏑|–⏑⏑|–⏑); a dactylic trimeter catalectic, called the *lesser Archilochian* (–⏑⏑|–⏑⏑|–); or a composite verse (in Horace probably logaoedic) made up of a dactylic tetrameter acatalectic and a trochaic tripody (–⏑⏑|–⏑⏑|–⏑⏑|–⏑⏑‖–⏑|–⏑|–⏑). See PROSODY. The **Archilochian strophes** are: a dactylic hexameter followed by a lesser Archilochian; a dactylic hexameter followed by an iambelegus; an iambic trimeter followed by an elegiambus; a greater Archilochian followed by an iambic trimeter catalectic.

ar'chi·lowe (är'kĭ·lō), *n.* [Origin uncert.] The return which one who has been treated in an inn sometimes considers himself bound in honor to make to the company. *Scot.*

ar'chi·mage (är'kĭ·māj), *n.* [NL. *archimagus*, fr. *archi-* + L. *magus.* See MAGI.] **1.** The high priest of the Persian Magi, or fire worshipers.
2. A great magician, wizard, or enchanter. *Scott.*

Ar'chi·ma'go (är'kĭ·mā'gō), *n.* [As if It. See ARCHIMAGE.] In Spenser's *Faerie Queene*, a magician who is an impersonation of Hypocrisy, or Fraud, and possibly of Satan.

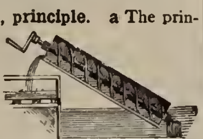
ar'chi·ma'gus (är'kĭ·mā'gŭs), *n.*; *pl.* ARCHIMAGI (-jī). [NL.] An archimage.

ar'chi·man'drite (-mǎn'drīt), *n.* [ML. *archimandrita*, fr. LGr. *archimandritēs*, fr. *archi-* (E. *arch-*) + *mandra* an enclosed space, esp. for cattle, a fold, a monastery.] *Eastern Ch.* **a** The superior or abbot of a larger monastery, in contrast to *hegumen*, the head of a smaller monastery. **b** An honorary title bestowed by a patriarch, catholicos, or bishop upon heads of a number of monasteries, prominent hieromonachs, and members of the so-called black clergy.

Ar'chi·me'de·an (är'kĭ·mē'dē·ǎn; -mē·dē'ǎn), *adj.* [L. *Archimedeus.*] Of or pertaining to Archimedes, a celebrated Greek philosopher, or mechanical discoveries attributed to him; hence, constructed on the principle of Archimedes' screw; as, *Archimedean* drill, propeller, etc.

Archimedean assumption, Archimedean axiom. *Math.* See AXIOMS OF CONTINUITY.

Archimedean, *or* **Archimedes', principle.** **a** The principle of the lever. **b** The principle that a body while wholly or partly immersed in a fluid loses in weight by an amount equal to that of the fluid displaced.



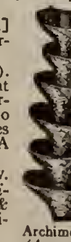
Archimedean Screw.

Archimedean, *or* **Archimedes', screw.** A device, attributed to Archimedes, consisting of a tube bent spirally around an axis or of a broad-threaded screw incased by a hollow open cylinder, and formerly used to raise water by rotating the apparatus when partly immersed in a slantwise direction.

Archimedean solid. *Math.* One of thirteen possible solids each of which has plane faces all of which are regular polygons, though not all of the polygons are of the same species, and each of which has all its solid angles equal.

Archimedean spiral. *Math.* A plane curve generated by a point moving away from or toward a fixed point at a constant rate while the radius vector from the fixed point rotates at a constant rate.

Ar'chi·me'des (är'kĭ·mē'dēz), *n.* [NL.] *Paleontol.* An extinct genus of Bryozoa characteristic of the Subcarboniferous rocks.



Archimedes (*A. wortheni*).

Ar'chi·me'des' prob'lem (är'kĭ·mē'dēz). *Math.* The problem of constructing a straight line representing the distance *x* from the circular base of a hemisphere of unit radius to the plane, parallel to the base, which divides the hemisphere into two equal volumes. A Euclidean construction is impossible.

Archimedes' pump. = ARCHIMEDEAN SCREW.

ar'chi·mime (är'kĭ·mīm), *n.* [L. *archimimus*, fr. Gr. *archimimos.* See MIME.] *Gr. & Rom. Antiq.* A chief mime or buffoon; a director of a troupe of mimes.

Ar'chi·my·ce'tes (är'kĭ·mī·sē'tēz), *n. pl.* [NL., fr. *archi-* + *-mycetes.*] *Bot.* A group of primitive fungi consisting of the Chytridiales, regarded as a subclass or order of Phycomycetes or, with certain related forms, as a separate class.

arch'ing (är'chĭng), *pres. part. & verbal n.* of ARCH, *v.* Specif.: *n.* The arched part of a structure; a system of arches.

ar'chi·pal'li·um (är'kĭ·pǎl'ĭ·ŭm), *n.* [NL., fr. *archi-* + *pallium.*] *Anat.* The olfactory part of the pallium, comprising the hippocampus and part of the hippocampal gyrus, and evolved earlier than the neopallium. Cf. NEOPALLIUM. — **ar'chi·pal'li·al** (-ǎl), *adj.*

ar'chi·pe·la'gi·an (är'kĭ·pē·lā'jĭ·ǎn), *adj.* Archipelagic.

ar'chi·pe·lag'ic (-pē·lǎj'ĭk), *adj.* Of or pertaining to, or of the nature of, an archipelago.

ar'chi·pel'a·go (-pĕl'ȧ·gō), *n.*; *pl.* -GOES, -GOS (-gōz). [It. *arcipelago*, prop., chief sea, fr. L. *pelagus*, fr. Gr. *pelagos* sea.] **1.** [*cap.*] The Grecian Archipelago, or Aegean Sea. It is studded with small islands.
2. Hence: Any sea or broad sheet of water interspersed with many islands or with a group of islands; also, such a group of islands.

ar'chi·pin (är'chĭ·pĭn), *n.* [Sp., fr. Nahuatl; cf. Nahuatl *ochipini* to fall drop by drop.] The gumbo limbo *Bursera simaruba*; also, the resin derived from it. *Mex.*

ar'chi·plasm (är'kĭ·plǎz'm), *n.* [*archi-* + *-plasm.*] *Biol.* **a** Primitive undifferentiated protoplasm. *Haeckel.* **b** See ARCHOPLASM. — **ar'chi·plas'mic** (-plǎz'mĭk), *adj.*

Ar'chi·pla'ta (-plä'tä), *n.* [*archi-* + La *Plata* region, S. America.] *Geol.* A paleogeographic land area corresponding to what is now the southern part of the South American continent.

ar·chip'pus but'ter·fly' (är·kĭp'ŭs). [After *Archippus*, Greek poet.] The viceroy butterfly. See VICEROY, 2.

ar·chip'ter·yg'i·um (är·kĭp'tĕr·ĭj'ĭ·ŭm), *n.* [NL., fr. *archi-* + Gr. *pterygion* fin, wing.] *Zool.* A form of fin having a long segmented axis, as that of *Neoceratodus*; — so called because it is a primitive type. — **ar·chip'ter·yg'i·al** (-ǎl), *adj.*

Archipterygium. One of the fins of *Neoceratodus.* Much reduced.

ar'chi·sperm (är'kĭ·spûrm), *n.* *Bot.* A plant of the Archispermae; a gymnosperm.

Ar'chi·sper'mae (-spûr'mē), *n. pl.* [NL., fr. *archi-* + *-spermae.*] *Bot.* The Gymnospermae; — so called from their presumed antiquity.

ar'chi·sphere (är'kĭ·sfēr), *n.* [*archi-* + *-sphere.*] *Bot.* An unfertilized archegonium.

ar'chi·tect (är'kĭ·tĕkt), *n.* [F. *architecte*, fr. L. *architectus, architecton*, fr. Gr. *architektōn* chief artificer, master builder, fr. *archi-* (E. *archi-*) + *tektōn* workman. See TECHNICAL.] **1.** A person skilled in the art of building; a professional student of architecture, or one who makes it his occupation to form plans and designs of, and to draw up specifications for, buildings, and to superintend their execution. Also, one who plans and constructs landscape work.
2. A contriver, designer, or maker; also [*cap.*], the Creator.

The *architects* of their own happiness. *Milton.*

3. Architecture. *Obs.*

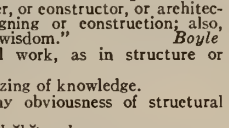
ar'chi·tect, *v. t.* To construct. *Rare.*

ar'chi·tec'tive (-tĕk'tĭv), *adj.* Used in building; pertinent to, or proper for, building. *Derham.*

ar'chi·tec·ton'ic (är'kĭ·tĕk·tŏn'ĭk), *adj.* [L. *architectonicus*, fr. Gr. *architektonikos.* See ARCHITECT.] **1.** Of or pertaining to a master builder, or constructor, or architecture; evincing skill in designing or construction; also, structural. "*Architectonic* wisdom." *Boyle.*
2. Resembling architectural work, as in structure or texture.
3. Relating to the systematizing of knowledge.
4. *Music.* Characterized by obviousness of structural design.
— **ar'chi·tec·ton'i·cal·ly** (-ĭ·kǎl·ĭ), *adv.*

ar'chi·tec·ton'ic, *n.* In senses 1 & 3, also **ar'chi·tec·ton'ics** (-ĭks). **1.** The science of architecture. See -ICS.
2. *Philos.* **a** The doctrine of pure method, or of the abstract systematization of knowledge. **b** The abstract scheme or plan, or the purely formal elucidation, of anything.
3. Structural design; structural skill.

Ar'chi·tec·ton'i·ca (är'kĭ·tĕk·tŏn'ĭ·kȧ), *n.* [NL. See ARCHITECTONIC.] *Zool.* A genus of tropical marine snails (suborder Taenioglossa) having a depressed conical shell the umbilicus of which is wide, so that the upper whorls can be seen in it. Syn. *Solarium.*



Architectonica (*A. perspectivum*). *a* Basal View; *b* Side View.

ar'chi·tec'tress (är'kĭ·tĕk'trĕs; -trĭs; 119), *n.* A female architect.

architects' scale. A scale or rule, usually of triangular section and made of boxwood, having a variety of graduations on its edges. One edge is usually graduated in inches and sixteenths of an inch; the other edges are graduated in twelfths and fractions thereof for lengths of three inches, one and one half inches, one inch, etc., so that dimensions of reduced-scale drawings may be measured directly in feet and inches.

ar'chi·tec'tur·al (är'kĭ·tĕk'tūr·ǎl), *adj.* Of or pertaining to the art of building; conformed to the rules of architecture. — **ar'chi·tec'tur·al·ly**, *adv.*

architectural engineering. The art and science of construction in architecture, as distinguished from architecture as an art of design. See ENGINEERING. — **architectural engineer.**

ar'chi·tec'tur·al·ist (-ĭst), *n.* One versed in architecture.

architectural ornament. See ORNAMENT.

architectural perspective. See PERSPECTIVE.

ar'chi·tec'ture (är'kĭ·tĕk'tūr), *n.* [F., fr. L. *architectura.* See ARCHITECT.] **1.** Art or science of building; esp., the art of building houses, churches, bridges, and other structures, for the purposes of civil life; — often called *civil architecture.*
2. A method or style of building, characterized by certain peculiarities of structure, ornamentation, etc. See *Chart and Illustrations* on pages 142 and 143.

Many other *architectures* besides Gothic. *Ruskin.*

3. Construction, in a more general sense; frame or structure; workmanship.

The *architecture* of grasses, plants, and trees. *Tyndall.*
The formation of the first earth being a piece of divine *architecture.* *Burnet.*

4. Architectural product; architectural work; buildings.

Architecture is . . . frozen music. *Schelling.*

ar'chi·tec'ture, *v. t.* To design; build. *Rare.*

Ar'chi·teu'this (är'kĭ·tū'thĭs), *n.* [NL., fr. *archi-* + Gr. *teuthis, -idos*, a kind of squid.] *Zool.* A genus of gigantic cephalopods, allied to the squids. It contains the largest cephalopods known, some being forty feet long, inclusive of the long arms. They are devoured by the sperm whale.

ar·chi'tis (är·kī'tĭs), *n.* [NL., fr. Gr. *archos* rectum + *-itis.*] *Med.* Proctitis.

ar'chi·trave (är'kĭ·trāv), *n.* [F. *architrave*, fr. It. *architrave*, fr. *archi-* + *trave* beam, fr. L. *trabs.*] *Arch.* **a** The lowest division of an entablature, or that part which rests immediately on the column, esp. in classical architecture. See ORDER, *Illust.* **b** The molded band, group of moldings, or other architectural member, above and on both sides of a door or other opening, esp. if square in form. — **ar'chi·tra'val** (-trā'vǎl), *adj.*

ar'chi·traved (-trāvd), *adj.* Furnished with an architrave.

ar·chi'val (är·kī'vǎl; är'kĭ·vǎl), *adj.* Of, pertaining to, or contained in, archives or records.

ar'chive (är'kīv), *n.*; *pl.* ARCHIVES (-kīvz). [F. *archives*, pl., fr. L. *archivum, archium*, fr. Gr. *archeion* government house, *ta archeia* archives, fr. *archē* the first place, government. See ARCHI-.] **1.** *pl.* A place in which public records or historic documents are kept. Formerly also in *sing.*

Our words . . . become records in God's court, and are laid up in his *archives* as witnesses. *Gov. of Tongue.*

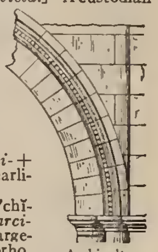
2. *pl.* Public records or documents preserved as evidence of facts; as, national or family *archives*. Also in *sing.*

Syn. — Registers, annals, chronicles. See RECORD.

ar'chive, *v. t.*; -CHIVED (-kīvd); -CHIV·ING (-kīv·ĭng). To file in archives.

ar'chi·vist (är'kĭ·vĭst), *n.* [ML. *archivista.*] A custodian of archives or records.

ar'chi·volt (är'kĭ·vōlt), *n.* [It. *archivolto, arcovolta*, fr. *arco* arch + *volto* arched, *volta* vault. See ARC; VAULT.] *Arch.* **a** The architectural member surrounding a curved opening, as of an arch, corresponding to the architrave of a square opening. **b** More commonly, the molding or other ornaments on the wall face of the voussoirs.



Archivolt.

ar'chi·zo'ic (är'kĭ·zō'ĭk), *adj.* [*archi-* + *-zoic.*] *Zool.* Of or pertaining to the earliest forms of life.

arch'lute' (ärch'lūt'), **ar'chi·lute** (är'chĭ·lūt; är'shĭ-), *n.* [F. *archiluth*, It. *arciliuto.* See ARCH-; LUTE.] *Music.* A large-bodied, double-necked lute or theorbo, with one set of double strings and a separate set of single bass strings, used esp. in the 17th century.

arch'ly (ärch'lĭ), *adv.* In an arch manner; with attractive slyness or roguishness.

arch'ness (-nĕs; -nĭs; 119), *n.* The quality of being arch; sly, mischievous humor free from malice.

ar'cho- (är'kō-). A combining form, from Greek *archos*, rectum, meaning *rectal*, used in *Med.*, as in *archocele*, rectal hernia.

archocele	archoptosis	archostegnosis
archocystosyrinx	archorrhagia	archostenosis
archoptoma	archorrhea	archosyrinx

Arch of Constantine, Severus, Titus, Trajan. See MEMORIAL ARCH.

arch of Cor'ti (kôr'tē). [After A. *Corti* (1822–76), It. histologist.] *Anat.* Any of the series of arches composing the tunnel of Corti. See ORGAN OF CORTI.

ar·chol'o·gy (är·kŏl'ō·jĭ), *n.* [Gr. *archē* origin, sovereignty + *-logy.*] **1.** The doctrine of origins.
2. The science of government.

ar'chon (är'kŏn; -kŭn), *n.* [L., fr. Gr. *archōn, archontos*, ruler, chief magistrate, pres. part. of *archein* to be first, to rule.] **1.** *Antiq.* The chief magistrate of ancient Athens; esp., after 683 B.C., one of the nine chief magistrates, with one-year terms. The ‖**archon eponymos** (ĕp·ŏn'ĭ·mŏs) gave his name to the civil year and exercised executive and judicial functions; the ‖**archon basileus** (băs'ĭ·lūs), or *king archon*, was charged with certain sacred rites; his wife, the ‖*basilinna* (-lĭn'ȧ) or ‖*basilissa* (-lĭs'ȧ), went through a ceremony of marriage with the wine god (see ANTHESTERIA); the ‖**archon polemarchos** (pŏl'ē·mär'kŏs) exercised military oversight; the remaining six, called *thesmothetae* (thĕs·mŏth'ē·tē), revised the laws and superintended public officials.
2. A magistrate of any of the Jewish communities of the Diaspora in the Greco-Roman period.
3. One of certain officials and dignitaries of the Byzantine Empire and modern Greece.
4. A ruler or presiding officer.
5. *Eastern Ch.* The director or official responsible for the proper performance of any ecclesiastical function.

ar'chon·tate (är'kŏn·tāt), *n.* [F. *archontat.*] An archon's term of office. *Gibbon.*

Ar·chon'ti·a (är·kŏn'shĭ·ȧ; -tĭ·ȧ), *n. pl.* [NL., neut. pl., fr. Gr. *archōn* ruling.] *Zool.* A group including only man. — **ar'chont** (är'kŏnt), *n.*

ar·chon'tic (är·kŏn'tĭk), *adj.* Of or pert. to an archon.

ar'cho·plasm (är'kō·plǎz'm), *n.* Also **ar'cho·plas'ma** (-plǎz'mȧ). [NL. *archoplasma.* See ARCHON; -PLASM.] *Biol.* The substance from which attraction spheres, astral rays, and spindles are developed in mitotic cell division, and of which they consist; — orig. so called, but now often *archiplasm*. — **ar'cho·plas'mic** (-plǎz'mĭk), *adj.*

arch order. *Arch.* In classical architecture, the system of framing arches with columns and entablatures; — called also *Roman order.*

arch'pres·byt'er·ate (ärch'prĕz·bĭt'ĕr·āt), **ar'chi·pres·byt'er·ate** (är'kĭ-), *n.* Orig., a district or part of a medieval diocese under an archpriest; now, a rural deanery. See ARCHPRIEST.

arch'priest' (ärch'prēst'; *see* ARCH-), *n.* A chief priest; specif.: *Eccl. Hist.* **a** In early times, a priest who acted as the chief assistant or as the vicar of a bishop in a cathedral, later called *dean*; also, a priest in charge of the clergy in a large town, later called *rural dean*. The latter term appears to have been mostly replaced in the Roman Catholic Church by *vicar forane*. **b** The head of the Roman Catholic secular clergy in England, from 1598 to 1623, when succeeded by a vicar apostolic. — **arch'priest'hood**, *n.* — **arch'priest'ship**, *n.*

arch ring. *Civ. Engin.* The curved member which is the main supporting element in an arched structure.

arch'see' (ärch'sē'), *n.* An archbishop's see.

arch solid (ärch). A voussoir.

arch spring. The upward curve in the shank of a shoe or last, measured from a straight line drawn from the ball to the heel.

arch stone. A voussoir.

arch support. A corrective device, usually of metal or molded leather, worn in the shoe to restore and support the natural arch of the foot.

arch'way' (ärch'wā'), *n.* A way or passage under an arch; also, an arch over a passage.

arch'wise' (ärch'wīz'), *adv.* In arched form.

Ar'chie (är'chĭ), *n.* Dim. of ARCHIBALD.
ar'chi·e·pis'co·py, *n.* Archiepiscopacy. *Obs.*
ar'chi·gas'ter (är'kĭ·gǎs'tĕr), *n.* = ARCHENTERON.
ar·chig'o·ny (är·kĭg'ō·nĭ). Var. of ARCHEGONY. *Rare.* — **ar'chi·gon'ic** (är'kĭ·gŏn'ĭk), *adj.* *Rare.*
ar'chi·lagh (är'kĭ·läκ), -**logh** (-lŏκ). Vars. of ARCHILOWE.
ar'chi·lute. Var. of ARCHLUTE.
ar·chin', **ar·chine'** (är·shēn'). Vars. of ARSHIN.
archinale. † ARSENAL.
Ar·chip'pus (är·kĭp'ŭs). *Bib.*
ar'chi·pres'by·ter, *n.* = ARCHPRIEST.
ar'chi·pres·byt'er·ate. Var. of ARCHPRESBYTERATE.
ar'chi·stome (är'kĭ·stōm), *n.* [See ARCHI-; -STOMA.] = BLASTOPORE.
Ar'chite (är'kīt). *Bib.*
ar'chi·tec·ton'ics (är'kĭ·tĕk·tŏn'ĭks), *n.* = ARCHITECTONIC, 1 & 3.
ar'chi·tec'tor (är'kĭ·tĕk'tĕr), *n.* An architect. *Obs.*
ar'chi·tec'tur·esque', *adj.* See -ESQUE.
ar'chon·ship, *n.* See -SHIP.
arch press. *Mach.* See PUNCH PRESS.
archt. Arched. *Ref. Sp.*
arch'wife', *n.* [*arch-* + *wife.*] A big, masculine wife. *Obs.*

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out, oil; cūbe, ūnite, ûrn, ŭp, circŭs, menü; chair; go; sing; then, thin; natūre, verdūre (249); κ = ch in G. ich, ach (109); boɴ; yet; zh = z in azure.

Numbers within pronunciation parentheses here and in vocabulary refer to §§ in Pron., preceding the Vocabulary.

Historic Styles	Types and Examples	Characteristic Features
EGYPTIAN		Mass, solidity, colossal size. Source of the columnar orders and of lotiform ornament (cf. fig. 4).
Old Kingdom: B.C. 2980–2475	*Pyramids* at Giza.	Simplicity of geometrical form. Highly finished stonework. See PYRAMID, 3.
Middle Kingdom: B.C. 2160–1788	*Tombs* at Beni Hasan.	Hewn in cliffs; open porticoes with columns, some of proto-Doric type. See PROTO-DORIC, *Illust.*
Empire: B.C. 1580–1090.	*Temple* at Der-el-Bahri.	Terraced courts with colonnades; ascent by ramps.
	Great temples, Karnak (Thebes).	Pylons, peristylar forecourts, hypostyle hall, and sanctuary (figs. 1 & 2); clerestory lighting; obelisks; colossi (fig. 3).
Ptolemaic and Roman: B.C. 324–A.D. 330	*Temple* at Elephantine.	Exterior peristyle.
	Temples at Edfu and Philae.	Rich elaboration and variety of detail; screen walls; Hathor-headed capitals.
MESOPOTAMIAN		Massive brick construction with arches; terraced roofs. Colored tile ornament. Staged towers, or ziggurats.
Old Babylonian Kingdom: B.C. 2100–1750	*Houses* and *temples* at Babylon.	Square open court, arched doorways, battlemented walls.
Assyrian Empire: B.C. 885–607.	*Palaces* at Khorsabad and Nineveh.	Complex plan with interior courts; fortified walls with flanking towers, barbicans, etc.; doorways flanked with winged bulls; continuous friezes of sculpture.
New Babylonian Kingdom: B.C. 612–538	*Temples* and *palaces* at Babylon.	Great ziggurat, or "Tower of Babel." Vaulted substructure of "Hanging Gardens."
PERSIAN		Derivative forms from Egypt, Assyria, and Greece. Native columnar forms with bull capitals.
B.C. 550–330	*Palaces* and *tombs* at Persepolis.	Propylaea and throne rooms, or apadanas, with slender columns.
GREEK		Simplicity, symmetry. Column and lintel construction in masonry.
Minoan: B.C. 3000–1400	*Palace* at Knossos.	Complex plan with terraced roofs, courts and light wells, stories and staircases.
Mycenaean: B.C. 1500–1100.	*Palaces* at Mycenae and Tiryns.	Megaron with gabled roof and vestibule in antis; propylaea.
	Beehive tombs at Mycenae.	Circular chamber with pointed corbel vault.
Archaic: B.C. 776–480	*Doric temples* at Selinus and Akragas.	Long, narrow cella with exterior peristyle and gable roof. Stout columns.
Transitional: B.C. 480–460	*Temple* of Zeus at Olympia.	Broader cella divided by longitudinal colonnades. Sculptured pediments.
Periclean: B.C. 460–400.	*Temples*, Theseum, Parthenon (fig. 1), Erechtheum (fig. 3), Wingless Victory, at Athens.	Subtle design and execution in marble. Sculptured pediments and continuous friezes. Delicate optical refinements; curvatures (entasis) and inclinations. Ionic order (of Asiatic origin) attains its established form.
Fourth Century: B.C. 400–330.	*Mausoleum* at Halicarnassus.	High basement supporting peristyle crowned by pyramid. Many friezes.
	Tholos at Epidaurus.	Circular cella with outer and inner peristyles, latter of the Corinthian order (fig. 4).
Hellenistic: B.C. 330–146.	*Altar* at Pergamum.	Vast flight of steps leading to Ionic colonnade above basement with colossal sculptured frieze.
	Pharos at Alexandria.	Lighthouse tower of diminishing stages, square, octagonal, and circular.
Greco-Roman: B.C. 146–A.D. 330	*Temple* of Olympian Zeus at Athens.	Colossal columns of the Corinthian order.
ROMAN		Greek orders with arched construction. Civil buildings for varied uses.
Etruscan: B.C. 500–300.	*Tombs; temples; sewers*, Cloaca Maxima.	
	Gateway at Perugia.	Molded arch ring in stone, ample abutment.
Republican: B.C. 300–50.	*Basilicas, bridges, aqueducts, theaters.*	
	Temples, "Fortuna Virilis."	Cella with engaged columns at sides and rear (fig. 2).
Imperial: B.C. 50–A.D. 330.	*Fora; thermae*, Diocletian; *basilicas*, Constantine; *commemorative arches* and *columns; palaces* and *villas; amphitheaters*, Colosseum.	Axial planning with vaulted interiors (fig. 3) in groupings over extended areas. Massive concrete cores with incrustation of marble. See BASILICA, 1; FORUM, 1; TRIUMPHAL ARCH.
MEDIEVAL	The basilican church.	Arched construction functionally used. Freedom of craftsmanship.
Early Christian: 325–525.	*Basilicas*, Santa Maria Maggiore, St. Paul beyond the Walls, Rome; *baptisteries*.	T plan. Light walls and wooden truss roofs (figs. 1 & 2; also fig. 1 under ROMAN). Mosaic decoration.
Byzantine: in Eastern Europe, 525–1453.	*Domed churches*, St. Sophia, Constantinople; St. Mark's, Venice.	Domed basilica, or Greek-cross plan, the dome placed over a square by means of pendentives. Construction without centering. Incised carving. Mosaics.
Romanesque: in Western Europe, about 775–1200.	*Churches*, esp. *monastic; castles*.	Vaulted basilica. Massive stone construction. Round arched openings.
Italian:	Sant' Ambrogio, Milan.	Ribbed groined vaults with compound piers. Arcaded and corbel cornices.
	Cathedral, baptistery, and Leaning Tower at Pisa (fig. 1).	Wooden-roofed basilica. Exterior arcading in multiplied stories. Optical refinements.
French:	*Abbeys* of Cluny, Clairvaux, and Citeaux; Saint-Martin, Tours; Saint-Sernin, Toulouse.	Experiments in vaulting, culminating in Île de France with Gothic system. Latin-cross plan. Chevet with apse aisle and radiating chapels. West front with twin towers.
English ("Norman"):	Durham Cathedral (fig. 4).	Roofs mostly wooden, permitting high clerestory.
German ("Rhenish"):	Cathedrals of Worms, Mainz, and Speyer.	Double-ended church with two transepts and many turrets. Triconch plans.
Spanish:	Santiago de Compostela.	Profusion of sculptured decoration.
Gothic: 1160–1530.	*Cathedrals; castles*, Coucy, Pierrefonds; *colleges*, Christ Church, Oxford; *town* and *guild halls*, Cloth Hall, Louvain.	Ribbed vaulting, pointed arches, vertical lines. Concentrated and balanced thrusts (fig. 2), making possible substitution for walls of large windows with tracery and stained glass. Effects of complexity and mystery. Scientific fortification.
French:		
12th Century:	Notre Dame, Paris.	Solution of structural problems. Sexpartite vaults. Relative solidity.
13th Century:	Amiens (fig. 1); Reims; Sainte-Chapelle, Paris.	Greater slenderness and height. Quadripartite vaults. Rose windows. Vertical effect.
14th Century:	Transept of Notre Dame; Saint-Ouen, Rouen.	Extremely thin geometrical lines.
"Flamboyant": 1450–1530.	Saint-Maclou, Rouen; N. spire of Chartres.	Flowing or flaming lines in tracery. Profuse decoration.
English:	*Abbeys*, Fountains, Ripon.	Lancet-shaped windows without mullions (fig. 4). Naves of great length.
Early English "Lancet": 1180–1250	Salisbury Cathedral.	Square east end.
"Decorated" or "Geometric": 1250–1380.	Lichfield Cathedral, "Angel Choir" of Lincoln.	Multiple ribs and liernes. Tracery at first geometric, then flowing or curvilinear. Rich floral decoration.
"Perpendicular": 1380–1530.	King's College Chapel; St. George's, Windsor (fig. 6); Henry VII Chapel, Westminster.	Fan vaulting with tracery and pendants; four-centered (Tudor) arches; perpendicular mullions with horizontal transoms.
German	Strasbourg and Ulm cathedrals.	Nave and aisles sometimes of equal height. See HALL CHURCH. Vault ribs fancifully curved.
Italian:	Cathedrals of Florence, Siena, Orvieto.	Relatively large wall surfaces with smaller windows. Surface decoration of marble, mosaic, and painting.
RENAISSANCE	*Palaces, villas, churches.*	Revival and adaptation of classic orders and Roman types. See RENAISSANCE ARCHITECTURE.
Italian: Early Renaissance 1420–1500.	Church of San Lorenzo, Pazzi Chapel, Riccardi Palace (fig. 1), Florence; Loggia, Verona.	Reversion to basilican type with columns and wooden roof; dome over square, polygonal, and Greek-cross plans. Delicate arabesque ornament.
"High Renaissance": 1500–1540.	Sant' Andrea, Mantua; Cancelleria Palace, St. Peter's (fig. 2), Vatican, Rome; Library of St. Mark's, Venice.	Façades with superposed orders; classic proportions and detail with little decorative carving. Repetition of uniform, self-sufficient elements. Calm serenity of horizontal lines and harmonious proportions.
Spanish: 1480–1570.	Town Hall, Seville; Palace of Charles V, Granada.	Plateresque (which see) ornament, Mudejar style with Moorish elements.
French: 1495–1590.	*Châteaux*, Blois, Chambord; Court of the Louvre, Paris.	Classic ornaments on northern body; steep roofs, dormers, high chimneys. Pavilions (see PAVILION).
English: 1520–1625	*Country houses*, Longleat, Kirby.	E and H plans; hall with tall mullioned windows, plaster ceilings, oak wainscot.
German: 1520–1600	*Castles*, Heidelberg; *town halls*, Cologne.	Fanciful arabesque decoration on northern body. Stepped gables and dormers.
ACADEMIC and BAROQUE 1540–1780	*Royal palaces, churches.*	Strict classic proportions of the orders; plastic freedom of composition in mass and space.
Italian	Colonnades of St. Peter's; Sant' Agnese, Rome, Santa Maria della Salute, Venice; *villas*.	Dynamic opposition of unbalanced masses and lines. Rustic columns, broken pediments. Union of building and environment. Terraced gardens.
French:	Palace of Versailles, Colonnade of the Louvre (see *Illust.*).	Stately formal exteriors, with rich interior decoration culminating in rocaille ornament. Plan with cour d'honneur (which see).
Spanish	Escorial (which see), Town Hall of Salamanca.	Somber walls with concentrated adornment of entrance. Churrigueresque ornament (see CHURRIGUERESQUE).
English	Banqueting House (fig. 4), Whitehall; St Paul's Cathedral, *country houses*.	Sober monumental treatment on Palladian models (see PALLADIAN); adoption of Roman elements. Garden temples of classic design.
German	Zwinger, Dresden.	Lavish use of baroque forms (fig. 5).
MODERN		Influence of historical and natural science, pure and applied.
Classic Revival 1760–1830.	*Churches*, Madeleine, Paris; *government buildings, monuments*.	Literal imitation of classic buildings, first Roman, then Greek. Supremacy of abstract form over practical convenience.
Gothic Revival 1750–1870.	*Churches, college buildings*, Houses of Parliament, London.	Imitation of medieval forms. Revival of handicraft.
Eclecticism 1820–1880.	*Theaters* and *opera houses*, Opera, Paris; *government buildings, libraries*.	Free choice between the historic styles, according to supposed appropriateness to use, or to national and local traditions.
Functionalism 1880–	*Railroad stations, factories, office buildings, exposition building*.	Expression of use and material. Exploitation of new materials such as iron and steel, glass, concrete, etc.

Architecture: Examples of Historic Styles

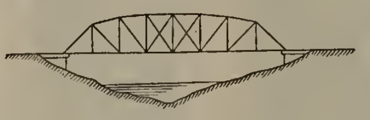
☞ COMBINATIONS and PHRASES are:

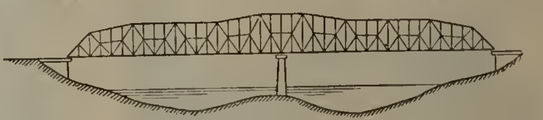
brick arch	brick drier	brickmaking
brick archer	brick-drying, *adj.*	brick mold
brick ax	brick dust	brick molder
brick-barred	brick earth	brick-paved
brick-bound	brick factory	brick paver
brick-building, *adj.*	brickfield	brick pointer
brick-built	brick-fronted	brick press
brick burner	brick-grinding, *adj.*	brick presser
brick-burning, *adj.*	brick hammer	brickset
brick carrier	brick-hemmed	bricksetter
brick chipper	brick hod	brick sorter
brick chisel	bricklayer	brick stamp
brick clay	bricklaying	brick-testing, *adj.*
brick-colored	brickliner	brick-walled
brick cutter	bricklining	brick wheeler
brick-cutting, *adj.*	brickmaker	brickyard

— ***to have a brick in one's hat.*** To be drunk. *Slang.*
brick (brĭk), *adj.* **a** Pert. to or made of bricks. **b** Brick-red.
brick (brĭk), *v.*; BRICKED (brĭkt); BRICK'ING. *Transitive:* **1.** To lay or pave with bricks; to surround, line, or construct with or as if with bricks.
2. To make into bricks or briquettes.
—, *Intransitive:* To work at or with bricks.
brick up. To fill up, enclose, or line, with bricks.
Brick, Mr. Jefferson (brĭk). In Dickens's novel *Martin Chuzzlewit*, a fiery young American politician and journalist.
brick'bat' (brĭk'băt'), *n.* **1.** A fragment of a brick; loosely, any similar thing used as a missile. See 1st BAT, 4.
2. An uncomplimentary remark, insult, aspersion, or the like, hurled at one as if it were a missile.
brick'bat', *v. t.*; BRICK'BAT'TED; BRICK'BAT'TING. To assail with or as with brickbats. *Colloq.*
brick beam. A lintel of bricks, with iron straps.
brick cheese. A sweet-curd, quick-ripened, semihard cheese, about the size and shape of a brick. The body is mellow and smooth.
brick'-dust' de·pos'it. *Med.* A sediment of urates in urine, resembling brick dust. It occurs in febrile conditions.
brick'en (brĭk'ĕn), *adj.* Of brick.
brick'field'er (brĭk'fēl'dẽr), *n.* *Australia.* **a** At Sydney, a southerly wind blowing clouds of dust from the brickfields; — now usually called *southerly buster.* **b** A hot wind, esp. one laden with dust.
brick'ing, *n.* Brickwork, or imitation of brickwork, as in making the brick stitch.
brick'kiln' (brĭk'kĭl'; -kĭln'), *n.* A kiln in which bricks are baked or burned; also, a pile of green bricks, arched to receive underneath the fuel for burning them.
Brick'lay'er, the (-lā'ẽr). Ben Jonson; — a nickname from his stepfather's trade, which he is said to have followed.
brick'le (brĭk''l), *adj.* [ME. *brekil, brokel, bruchel*, fr. AS. *brecan*. See BREAK.] Brittle; fragile; uncertain. *Archaic & Dial.* "Built of *brickle* clay." *Spenser.* — **brick'le·ness**, *n. Obs.* — **brick'ly** (-lĭ), *adj. Dial.*
brick machine. **a** An auger machine. **b** A dry-tamp machine. **c** A pressure machine. — **brick machinist.**
brick'mak'er's a·ne'mi·a (brĭk'māk'ẽrz). Ancylostomiasis.
brick'ma'son (-mā's'n), *n.* One skilled in laying brick; a mason who builds with brick.
brick nog *or* **nogging.** *Arch.* Brickwork filled in between the timbers of a wood-framed wall or partition. — **brick'-nogged'** (-nŏgd'), *adj.*
brick red. A color, reddish red-yellow in hue, of low saturation and medium brilliance. Called also *Saravan.* Cf. COLOR. — **brick'-red'**, *adj.*
brick stitch. *Needlework.* A kind of flat couching creating the appearance of regular courses of bricks.
brick tea. Tea leaves and young shoots, or refuse tea, steamed and pressed into bricks. It is used as a medium of exchange in Asia, as in Burma and Tibet.
brick'tim'ber (brĭk'tĭm'bẽr), *n.* Mountain holly (*Nemopanthus mucronata*).
brick trimmer. *Arch.* A trimmer arch of brick.
brick'work' (brĭk'wûrk'), *n.* **1.** Anything made of bricks.
2. Act of building with or laying bricks.
3. A place where bricks are made; — chiefly *pl.*
brick'y (brĭk'ĭ), *adj.*; BRICK'I·ER (-ĭ·ẽr); BRICK'I·EST. Full of bricks; formed of bricks; resembling bricks or brick dust; suggestive of brick.
bri·cole' (brĭ·kōl'; brĭk'ŭl), *n.* [F.] **1.** A catapult.
2. **a** In court tennis: (1) The rebound of a ball from a wall. (2) The side stroke or play by which the ball is driven against the wall. **b** Figuratively, indirect action or stroke.
3. A kind of traces with hooks and rings, to drag guns.
4. *Billiards.* A shot in which the cue ball strikes one of the cushions after contact with the object ball and before hitting the carom ball.
brid'al (brīd'ăl; -'l), *n.* [ME. *bridale, brudale*, fr. AS. *brȳdealo* bride-ale, bridal feast. See 2d BRIDE; ALE, 2.] A nuptial festival or ceremony; a marriage; a bridal procession.
brid'al, *adj.* [See BRIDAL, *n.*] Of or pert. to a bride or a wedding; nuptial; as, *bridal* ornaments. — **brid'al·ly**, *adv.*
bridal chest. A chest for the accumulation of a trousseau.
bridal duck. = WOOD DUCK **a**.
brid'al·er (brīd'ăl·ẽr), *n.* A participant in a bridal.
bridal lace. Carnival lace.
bridal myrtle. The common myrtle.
bridal veil. A northern African shrub (*Genista monosperma pendula*) with showy sprays of pealike flowers.
bridal wreath. **a** A shrub (*Spiraea prunifolia*) having copious umbels of small white flowers, appearing in spring; — called also *St. Peter's-wreath.* **b** A somewhat similar shrub (*Francoa ramosa*), family Saxifragaceae, of Chile. **c** *S. Afr.* = MADEIRA VINE.
bride (brīd), *n.* [F., bridle, bonnet string, fr. MHG. *brīdel*. See 1st BRIDLE.] **1.** A bridle. *Obs.*
2. **a** A loop, bar, or tie, in needlework, etc. See BAR, *n.*, 18. **b** *Lacemaking.* One of the slender threads or ties connecting different motives in the pattern where there is no net ground. **c** A bonnet string.
bride (brīd), *n.* [AS. *brȳd*; akin to OFris. *breid*, OS. *brūd*, D. *bruid*, OHG. *brūt*, G. *braut*, ON. *brūthr*, Goth. *brūths*; cf. L. *Frutis*, a name of Venus.] **1.** A woman newly married, or about to be married.
2. A spouse, of either sex. *Obs.*
3. [*cap.*] A popular white-flowered variety of tea rose.
bride (brīd), *v. i.* To appear or act as a bride. — *v. t. Obs.* To make a bride of; to wed.
bride'-ale', brid'ale' (brīd'āl'), *n.* [See BRIDAL.] A rustic wedding feast; a bridal. See ALE, 2.
bride'bed' (brīd'bĕd'), *n.* Marriage bed.
bride'bowl' (-bōl'), *n.* A bridecup.
bride'cake' (-kāk'), n. **1.** Wedding cake.
2. A rich cake cut by the bride at a wedding. It often contains a ring, thimble, and coin as fortunetelling symbols for the recipients.
bride'cham'ber (brīd'chām'bẽr), *n.* A nuptial apartment.
bride'cup' (-kŭp'), *n.* A spiced drink or cup served a bridal couple at night; also, the cup or bowl from which guests drink at a wedding.
bride duck. = WOOD DUCK **a**.
bride'god' (brīd'gŏd'), *n.* The god of marriage; Hymen.
bride'groom' (brīd'grōōm'; 200), *n.* [ME. *bridegome, brudgume*, fr. AS. *brȳdguma* (akin to OS. *brūdigumo*, D. *bruidegom, bruigom*, OHG. *brūtigomo*, G. *bräutigam*), fr. the stems of AS. *brȳd* bride + *guma* man; akin to Goth. *guma*, ON. *gumi*, OHG. *gomo*, L. *homo*, Lith. *žmuo* man; prop., son of the earth, and akin to L. *humus* earth, soil. The *r* in *bridegroom* is due to confusion with, or substitution of, *groom*. See 2d BRIDE; HUMBLE. Cf. GROOM, HOMAGE.] A man newly married, or about to be married. — **bride'groom'ship**, *n.*
bride'groom', *v. t.* To wed. *Rare.*
bride'knot' (-nŏt'), *n.* A knot (sense 3) worn at a bridal.
bride'lace' (brīd'lās'), *n.* A ribbon of lace formerly given as a favor at weddings. It was used to bind sprigs of rosemary or worn as a decoration.
bride'ly (-lĭ), *adj.* [Cf. AS. *brȳdlic*.] Bridal; nuptial. *Rare.*
bride'maid'en (-mād''n), *n.* A bridesmaid.
Bride of A·by'dos, The (ȧ·bī'dŏs). A romantic narrative poem (1813) by Byron. See ZULEIKA.
Bride of Lam'mer·moor' (lăm'ẽr·mōōr'; lăm'ẽr·mōōr'). A romance (1819) of the early 18th century, by Scott. See ASHTON, LUCY.
‖**bride' pi'co'tée'** (brĕd' pē'kō'tā'). [F.] *Laces.* A hexagonal buttonholed bar with three or four purls.
bride price. Money, property, or services given by or in behalf of a prospective husband in purchase of a wife.
bride's'-lac'es (brīdz'lās'ĕz; -ĭz; 119), *n. sing. & pl.* **a** The dodder. **b** *Eng.* Ribbon grass.
brides'maid' (brīdz'mād'), *n.* A woman, usually young and unmarried, who assists at a wedding, now chiefly in attending on the bride.
brides'maid'ing, *n.* Act of serving as bridesmaid.
brides'man (-măn), *n.*; *pl.* -MEN (-mĕn). A groomsman.
bride'stake' (brīd'stāk'), *n.* A stake or post formerly set in the ground for guests at a wedding to dance round.
bride'wain' (-wān'), *n.* A wain, or wagon, bearing the wedding presents of the bride; hence, a carved chest for the bride's clothing and presents; the wedding presents; also, a wedding with invited guests. *N. of Eng.*
bride'weed' (brīd'wēd'), *n.* The toadflax.
bride'well (-wĕl; -wĕl), *n.* **1.** [*cap.*] A house of correction standing till 1864 in London near Blackfriars Bridge. It was originally a palace, built by Henry VIII. So called from St. Bride's (or Bridget's) well near by.
2. A house of correction; loosely, a jail or prison.
bride'wort' (-wûrt'), *n.* **a** Meadowsweet. **b** Toadflax.
bridge (brĭj), *n.* [ME. *brig, brigge, brug, brugge*, fr. AS. *brycg, bricg*; akin to OFris. *brigge, bregge*, D. *brug*, OHG. *brucca*, G. *brücke*, ON. *bryggja, brū*, Gaulish *brīva* bridge, OSlav. *brŭvŭno* beam (the basic meaning of the Teut. word).] **1.** A structure erected over a depression or an obstacle, as over a river, chasm, roadway, railroad, etc., carrying a roadway for passengers, vehicles, etc. Cf. AQUEDUCT. Bridges may be classified: (1) according to type of supporting elements, as slab, beam, girder, truss, arch, cantilever, suspension bridges; (2) according to use, as foot, highway, railway bridges; (3) according to position of roadway, as deck, through, bottom-road bridges; (4) if movable, as bascule, vertical-lift, swing, traversing, transporter bridges. See also DRAWBRIDGE, PONTOON BRIDGE.
☞ COMBINATIONS in this sense are:

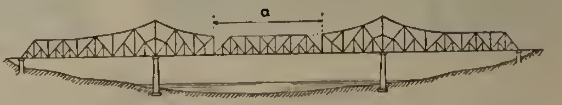
bridgebuilder	bridgekeeper	bridgemaking
bridgebuilding	bridgemaker	bridgeway

2. A movable landing stage or gangway for boats; also, formerly, a pier float, jetty, etc., for landing from boats.
3. A ridge rising from the bed of a body of water or the bed waterway. *British.*
4. Anything supported above a place or object after the manner of a bridge and serving as a support for something or as a way over something; in general, anything bridgelike in form or position; specif.: **a** The upper bony part of the nose; also, the curved part of a pair of spectacles which rests upon this part. **b** The pons Varolii.
5. *Arch.* A bridging joist.
6. *Astron.* A band across a sunspot.
7. *Billiards & Pool.* **a** The hand in a position as a rest for the cue in striking the ball. **b** A contrivance consisting of a notched or crossed piece at the end of a thin wooden rod, used as a cue rest; — in England usually called *rest*.
8. [Formerly called *biritch* (of unknown origin; not Russ., as often stated), appar. changed to *bridge* from the dealer's *bridging*, or passing, the declaration of trumps to his partner.] *Card Games.* **a** A card game derived from whist and superseded by auction bridge, from which it differed in that (1) the trump was always named by the dealer or his partner, (2) the dealer always played the dummy no matter which partner made the trump, (3) either side could score toward game on any given hand, and (4) the scoring was different, the bonus for the rubber being only 100, and the values of odd tricks being: in spades, 2; clubs, 4; diamonds, 6; hearts, 8; no-trump, 12. **b** = AUCTION BRIDGE (which see). **c** = CONTRACT BRIDGE (which see). *Bridge* (in the sense of a card game) is prefixed to definitions in this Dictionary to indicate the field in which the word or sense is typically used.
9. *Card Playing.* A bender (which see).
10. *Chem.* An atom or group of atoms, or a valence bond, connecting two different parts of a molecule, esp. opposite sides of a ring; as, the carbon *bridge* in camphane; the valence *bridge* in naphthalene (see the formulas at CAMPHANE, NAPHTHALENE).
11. *Cotton Spinning.* = BRIDGE BRACKET.
12. *Dentistry.* A device for securing artificial crowns where teeth are missing, by anchorage to natural teeth.
13. *Elec.* **a** A device in which the current-detecting instrument, usually a galvanometer, is bridged across or connected across two branches of the circuit. It is used for measuring the resistance of a conductor, the inductance of a coil, the capacitance of a condenser, or the like. **b** A group of heavy conducting rods connecting an electric generator with the main conductors of a lighting system. **c** In an electric blasting cap, a short fine wire that, when heated by an electric current, ignites the explosive charge.
14. *Furnaces.* Short for BRIDGE WALL.
15. *Geog. & Geol.* Short for LAND BRIDGE.
16. *Ironworking.* A plank way or platform to convey fuel or ore to the mouth of a furnace.
17. *Mach.* In a valve seat, the metal separating the ports.
18. *Mining.* **a** A timber supported on blocks which rest on another timber, leaving a narrow space between them through which piles may be driven, as in forepoling. **b** *Eng.* A sliding cover, usually on wheels, for the top of a shaft.
19. *Music.* **a** The small arch or bar at right angles to the strings of a violin, guitar, etc., serving to raise them and


Simple Truss Bridge.

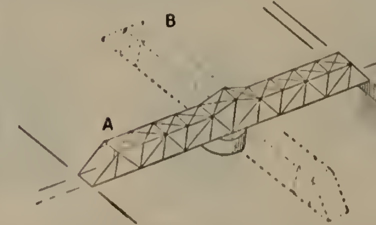

Continuous Truss Bridge.

Steel Arch Bridge.

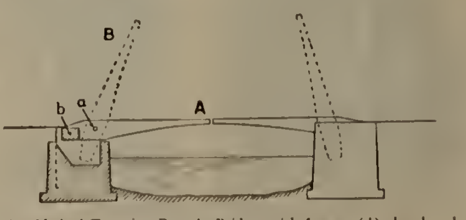


Cantilever Bridge. *a* Suspended Span.

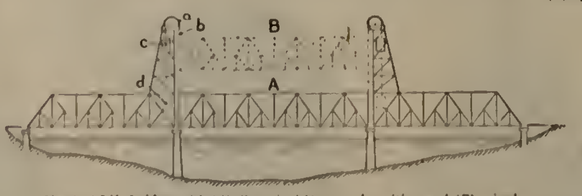
Suspension Bridge.



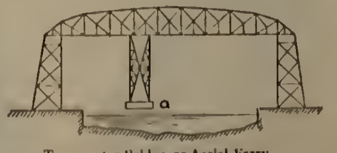
Swing Bridge, (*A*) closed and (*B*) open.



Double-leaf Trunnion Bascule Bridge, with Leaves (*A*) closed and (*B*) open. *a* Trunnion; *b* Counterweight.



Vertical Lift Bridge, with Lift Span in (*A*) normal position and (*B*) raised. *a* Sheave; *b* Cable; *c, d* Counterweight.



Transporter Bridge, or Aerial Ferry. *a* Suspended Car.

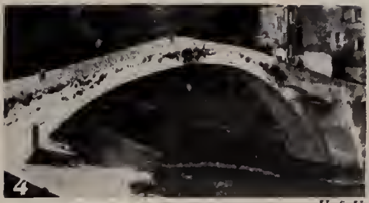
brick'croft' (brĭk'krŏft'), *n.* A brickyard. *Eng.* [yard. *Eng.*]
brick'el (brĭk'ĕl; -'l), *n.* A brick
brick·ette' Var. of BRIQUETTE.
brick'hood, *n.* See -HOOD.
brick'ish, *adj.* See -ISH.
brick'like', *adj.* See LIKE.
brick'low (brĭk'lō). Var. of BALGALOW.
brickt. Bricked. *Ref. Sp.*
brick'wall' (brĭk'wôl'), *n. Tennis.* Corrupt. of BRICOLE. — *v. t.* To cause to rebound. *Both Obs.*
brick'wise' (-wīz'), *adv. & adj.* See -WISE.
brick'y (-ĭ), *n.* A bricklayer. *Slang, Eng.*
brid Var. of BIRD. *Now Dial.*
brid'al·ty, *n.* A bridal. *Obs.*
Bride (bīd). Var. of BRIDGET, BRIGIT.
Bride, Saint. = BRIGIT, SAINT.
bride'head', *n.* = BRIDEHOOD.
bride'hood, *n.* See HOOD.
bride'house', *n.* A house where weddings were celebrated. *Obs.*
bride'less, *adj.* See -LESS.
bride'like', *adj.* See -LIKE.
bride'maid', *n.* = BRIDESMAID. — **bride'maid'ship**, *n.*
bride'man, *n.* = BRIDESMAN. *Obs.*
bride's chest. = BRIDAL CHEST.
bride'ship, *n.* See -SHIP.
bride'wel. Bridewell. *Ref. Sp.*
bridgd. Bridged. *Ref. Sp.*
bridge, *v.* Short for ABRIDGE. *Obs.*

BRIDGES

U. & U.

U. & U.

U. & U.



U. & U.

U. & U.

U. & U.

U. & U.

Brown Bros.

U. & U.

U. & U.

U. & U.

Acme

U. & U.

U. & U.

1. Rope (Suspension) Bridge, *China*
2. Natural Bridge, *Rockbridge County, Va.*
3. Wooden Covered Bridge, *Brattleboro, Vt.*
4. Medieval Masonry Arch Bridge, *Liguria, Italy*
5. Cantilever Bridge, *Firth of Forth, Scotland*
6. High Bridge (Masonry Arches), Washington Bridge (Twin Steel Arches), *New York, N. Y.*
7. Delaware River (Suspension) Bridge, *Philadelphia, Pa.*
8. Hudson River (Suspension) Bridge, *New York, N. Y.*
9. Brooklyn (Suspension) Bridge, *New York, N. Y.*
10. Cantilever Bridge, *Quebec, Canada*
11. Steel Arch Bridge, *Staten Island, N. Y.*
12. Steel Arch Bridge, *Sydney, Australia*
13. Steel Arch Bridge, *Lees Ferry, Ariz.*
14. Concrete Arch Bridge, *Minneapolis, Minn.*
15. Steel Arch Bridge, *Victoria Falls, Africa*
16. Bascule Bridge, *Flushing, Long Island, N. Y.*
17. Vertical Lift Bridge, *Bath, Me.*

U. & U.

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gi·raffe′ (jĭ·răf′; see Pron., § 83), *n.*; *pl.* GIRAFFE, GIRAFFES (-răfs′). See PLURAL, *Note.* [F. *girafe*, fr. It. *giraffa*, fr. Ar. *ẓirāfah, zarāfah.*] **1.** A large ruminant mammal (*Giraffa camelopardalis*) of Africa, now nearly exterminated except in remote districts; the camelopard. It is the tallest of quadrupeds, the male sometimes standing more than eighteen feet high. The neck is very long and rather stiff, having only the usual number of vertebrae (seven). The forelegs are also very long. In both sexes the head bears a pair of short horns covered with skin. It also has a median prominence, best developed in South African specimens. Largely on this character the giraffes of this region are sometimes considered a distinct species (*G. capensis*). In color the giraffes are pale fawn or cream, with numerous large reddish, yellowish, or brown spots. They feed on the leaves and twigs of trees, and are timid in disposition and able to run swiftly. Fossil remains of related species have been found in Europe and Asia.

1/100 Giraffe.

2. A sort of upright spinet, used in the 18th century. **3.** [*cap.*] *Astron.* The constellation Camelopard. **4** *Mining.* A car of a special form, higher at one end than at the other, for use on inclines.

giraffe camel. *Paleontol.* Any of several long-necked North American camels (esp. genus *Alticamelus*) of the Miocene.

Gi·ral′da (jĭ·răl′dȧ; *Sp.* hē·räl′dä; 142), *n.* [Sp., fr. *girar* to turn.] The square tower of the cathedral of Seville, Spain, first built in the 12th century as a minaret when the building was a mosque. The belfry (dating from 1568) is surmounted by a colossal bronze statue of Faith so adjusted as to turn easily in the wind.

The Giralda.

gir′an·dole (jĭr′ăn·dōl), *n.* [F., fr. It. *girandola*, dim. of *giranda*, fr. *girare* to revolve, fr. L. *gyrare*. See GYRATE; cf. GIRASOL.] **1.** A radiating and showy or ornamental composition, as a cluster of skyrockets fired together, or a fountain with rising column of water which spreads. Cf. ANTHEMION. **2. a** An ornamental, branched candleholder. **b** In the United States, a convex mirror in a richly ornamented circular frame with two or more sconces attached. **3.** A kind of earring, esp. one with small stones grouped about a larger one.

girandole clock. A kind of clock similar to a banjo clock, but having a large circular base resembling a girandole.

gir′a·sol, gir′a·sole (jĭr′ȧ·sŏl; -sōl), *n.* [It. *girasole*, fr. *girare* to turn + *sole* sun. See GIRANDOLE; SOLAR.] **1. a** The heliotrope (*Heliotropium*). **b** A sunflower, esp. the Jerusalem artichoke. **2.** *Mineral.* An opal of varying color, which gives out firelike reflections in a bright light; — called also *fire opal.*

A form of Girandole much in vogue about 1800.

gir′ba (gĭr′bȧ), *n.* [Ar. *qirbah* waterskin.] A kind of leather flask.

gird (gûrd), *v. t.*; *past tense & past part.* GIRT (gûrt) or GIRD′ED; *pres. part. & verbal n.* GIRD′ING. [ME. *girden, gerden, gurden, gorden*, fr. AS. *gyrdan*; akin to OS. *gurdian*, D. *gorden*, OHG. *gurten*, G. *gürten*, ON. *gyrtha*, Sw. *gjorda*, Dan. *giorde*, Goth. *bigairdan* to begird, and prob. to E. YARN enclosure. Cf. 3d GIRD, GIRDLE, GIRT, *v.*, GIRTH.] **1.** To encircle or bind with any flexible band, as a belt; hence, to make fast or secure, as a sword by a belt or clothing with a cord, girdle, bandage, or the like; to girt. **2.** Hence: **a** To provide or equip, esp. with the sword of knighthood. **b** To clothe or invest, as with a robe confined by a girdle, or with powers or attributes.

Thou hast *girded* me with strength. *Ps. xviii. 39.*

c To prepare; to brace; as, to *gird* oneself for a contest.

Gird up the loins of your mind. *1 Pet. i. 13.*

3. To surround; to encircle; as, a city *girt* with a river. **4.** To put a rim or hoop on. *Scot. & N. of Eng.* **5.** *Mil.* To besiege; to invest. *Archaic.*

Syn. — Bind, girdle, belt; fasten, secure; enclose, environ.

gird (gûrd; *Scot.* gĭrd), *n.* [Cf. GIRTH, GIRN to encircle.] **1. a** *Obs.* A girdle, girth, or strap. **b** *Obs. exc. Dial.* A hoop, esp. for a barrel or tub; also, a child's hoop. **2.** [Cf. GIRDER, GIRT girder.] A girder; esp., a sill.

gird (gûrd; *Scot.* gĭrd), *v.* [ME. *girden, gerden, gurden, gorden*, appar. the same word as *gird* to encircle, and first used of striking with a belt or whip, the lash circling round the one struck. Cf. GRIDE, *v.*] *Transitive:* **1.** To strike; smite. *Obs. exc. Dial.*

To slay him and to *girden* off his head. *Chaucer.*

2. To move quickly in some way, as thrusting, driving, pulling, or throwing; as, to *gird* about. *Obs. exc. Dial.* **3.** To sneer at; to mock; gibe.

Being moved, he will not spare to *gird* the gods. *Shak.*

—, *Intransitive:* **1.** To strike. *Obs.* **2.** To move or act quickly or energetically; to rush. *Dial.* **3.** To make a scornful jest; to gibe; sneer; — usually with *at.*

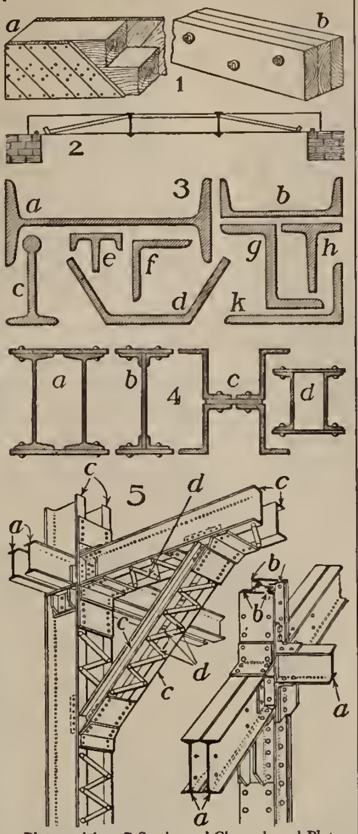
Syn. — See SCOFF.

gird (gûrd; *Scot.* gĭrd), *n.* [See GIRD to strike.] **1.** *Obs. exc. Dial.* **a** A sharp stroke with a rod or switch. **b** A sudden motion; a jerk. **c** A moment; trice. **d** A twinge; pang. **2.** A cut; a sarcastic remark; a gibe; a sneer. *Archaic.*

I thank thee for that *gird*, good Tranio. *Shak.*

3. An uncontrollable fit (of laughter). *Dial. Eng.*

gird′er (gûr′dẽr), *n.* [From GIRD to encircle.] **1. a** One of the main timbers in a framed floor supporting the joists which carry the flooring boards. **b** Any heavy, strong, or principal horizontal member on which the weight of a floor or partition is carried. **2.** *Arch. & Engin.* An iron or steel beam of economical section, either made in a single piece or built up of plates, flitches, latticework, bars, etc., and often of very large proportions (as in bridge work), used for the same or a similar purpose. See BOX GIRDER, BOWSTRING BEAM, LATTICE GIRDER, PLATE GIRDER, TRUSS.



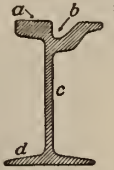
Description of Illustration: 1 *a, b,* Two forms of Built-up Wooden Girders. 2 Trussed Wooden Girder. 3 Sections of typical Iron and Steel Girders. *a* I or H Section; *b* Channel Iron; *c* Bulb-tee; *d* Channel with sloping sides; *e* Flanged T; *f* Angle; *g* Z Section; *h* T Section; *k* Angle with unequal Flanges. 4 Sections of typical Built-up Girders. *a* I Sections and Plates; *b* Angles and Plates; *c* Plate and four Z Sections; *d* Channels and Plates. 5 Examples of Built-up Girders and Columns in Place. *a* I or H Sections; *b* Z Sections; *c* Channel Sections; *d* Latticing.

3. *Masonry.* A bonding stone or course. *Obs.* **4.** *Shipbuilding.* A rolled metal unit of I section or other section, or a built-up unit of rolled members and plate worked fore and aft, etc.

gird′er (gûr′dẽr; *Scot.* gĭr′dẽr), *n.* [From GIRN to sneer at.] One who girds; a mocker or caviler.

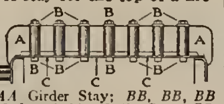
gird′er·age (gûr′dẽr·ĭj), *n.* Girders collectively.

girder bridge. *Civ. Engin.* A bridge in which the supporting members are girders. A ***through girder bridge*** is one in which the traffic passes between the girders. A ***deck girder bridge*** is one in which the traffic is carried on top of the girders.


Girder Rail. *a* Tread; *b* Flangeway; *c* Web; *d* Base.

girder rail. *Railways.* A heavy rail having a deep web, used in a street where paving is laid.

girder stay. *Steam Boilers.* A stay for the top of a firebox crown, consisting of a girder composed of a single or double wrought-iron flat bar resting on the side plates and having short vertical stays suspended from it at intervals, passing through the firebox crown.


AA Girder Stay; *BB, BB, BB* Bolts to hold up Boiler Crown *CC.*

girder tool. A molder's flange with flatly curved ends.

gird′ing, *n.* **1.** Act of one who or that which girds. **2.** That with which one is girded; as: **a** *Obs.* A girdle. **b** *Scot.* A girth. **c** *Obs.* A girder.

gir′dle (gûr′d'l), *n.* [ME. *gurdel, girdel*, fr. AS. *gyrdel*; akin to D. *gordel*, G. *gürtel*, ON. *gyrthill*, and E. GIRD to encircle.] **1.** That which girds, encircles, confines, or restrains; esp., a belt, sash, or article of dress encircling the body at the waist to fasten or confine garments or to furnish a means of carrying things, as keys or a sword.

Their breasts girded with golden *girdles*. *Rev. xv. 6.*

2. That part of the body where the girdle is worn. **3.** Something surrounding or encircling after the manner of a belt or girth about the waist; specif., the zodiac or ecliptic; also, the equator or a geographical zone; — in full, *girdle of the world* or *globe*. Hence, now *Archaic*, ***to put, make,*** or ***cast, a girdle round,*** to make a circuit, or rounding, as of the earth. **4.** A belt or ring made by the removal of the bark around the trunk of a tree. **5.** A light corset supporting the body below the waistline. **6.** *Arch.* A band; a cincture. **7.** *Biol.* In certain peridinians, that part of the shell lying between the epivalve and hypovalve. **8.** *Bot.* **a** Either of the two hooplike bands forming the sides of the two valves of a diatom; a cingulum. **b** A large kelp (*Laminaria saccharina*) having a ropelike stalk or stipe. See LAMINARIA, *Illust.* **9.** *Eccl. Vestments.* A cord or narrow band, tasseled at the ends, used to confine the alb. **10.** *Jewelry.* That edge of a gem which is grasped by the setting. See BRILLIANT, *Illust.* **11.** *Mining.* A thin bed or stratum of stone. *Eng.* **12.** *Zool.* **a** The clitellum of an earthworm. **b** A bony arch for the support of a limb. **c** In the Amphineura, the muscular and spicule-bearing peripheral part of the mantle, encircling the shell plates.

— ***under one's girdle.*** Bound to one, i.e., in subjection.

gir′dle (gûr′d'l), *v. t.*; GIR′DLED (-d'ld); GIR′DLING (-dlĭng). **1.** To bind or encircle with or as with a belt or sash; to gird. **2.** To encircle; environ; as, Paris is *girdled* with forts. **3.** To make a circular cut around (a tree, etc.) through the outer bark and cortex, thus killing it.

gir′dle (gûr′d'l; *Scot.* gĭr′d'l), *n.* A griddle. *Chiefly Scot.*

girdle band (gûr′d'l). = GIRDLE, 8 a.

girdle bone. *Zool.* The sphenethmoid bone.

gir′dle-cake′ (gûr′d'l·kāk′; *Scot.* gĭr′d'l-), *n.* A griddlecake. *Scot. & N. of Eng.*

girdle of fire (gûr′d'l). The circumpacific zone.

girdle of Venus. **a** See CESTUS, 1. **b** See PALMISTRY.

gir′dler (gûr′dlẽr), *n.* **1.** A maker of girdles. **2.** One who girdles, or encircles. **3.** A lumberman who girdles trees. **4.** Any insect that girdles stems, twigs, etc.; specif., a small grayish-brown longicorn beetle (*Oncideres cingulata*) of America, which lays its eggs on the twigs of the hickory, pear, and other trees, and girdles each twig by gnawing a groove around it.

girdle sensation. *Med.* A sensation like that produced by a tightly drawn belt, sometimes associated with spinal disease.

gir′dle·stead (gûr′d'l·stĕd), *n.* [*girdle* + *stead* place.] **1.** That part of the body where the girdle is worn; the waist. *Archaic.* **2.** The lap. *Rare.*

girdle wheel. A kind of spinning wheel small enough to be hung at the girdle.

Girdler, 4, and Girdled Twig. (2/3)

gir′dling (gûr′dlĭng), *adj.* That girdles. — **gir′dling·ly** (-lĭ), *adv.*

gir′dling, *n.* Act or work of a girdler; material for girdles.

gi·rel′la (jĭ·rĕl′ȧ), *n.* [NL., fr. F. *girelle*, said to be fr. L. *julis.*] *Zool.* A genus of herbivorous marine fishes with movable incisors, allied to the Kyphosidae. It typifies a family, **Gi·rel′li·dae** (-ĭ·dē).

Gir′ga·shite (gûr′gȧ·shīt), **Gir′ga·site** (-sīt), *n.* *Bib.* One of a Canaanitish tribe.

girl (gûrl; 245), *n.* [ME. *girle, gerle, gurle*, young person, of obscure origin.] **1.** A young person of either sex; a child. *Obs.* **2.** A female child; a maiden; also, a young unmarried woman; — in familiar, affectionate, or jocular use applied to any woman, and often to a mare or filly. **3.** A female servant; a maidservant. **4.** A sweetheart; as, his best *girl*. *Colloq.* **5.** A roebuck in its second year. *Obs.*

girl, *adj.* **1.** That is a girl; as, a *girl* bachelor; being a young female; as, a *girl* baby. **2.** Of, pert. to, or like that of a girl; as, *girl* life, nature.

girl, *v. i.* To go with girls; court. *Colloq.*

girl (gĭrl), *v. i.* [E. dial. also *girrel*, prob. imitative.] To tingle; thrill; shiver. *Scot.*

girl′een (gĭrl′ēn), *n.* [See -EEN.] A young girl. *Anglo-Ir.*

girl′er·y (gûr′lẽr·ĭ), *n.* Girls collectively.

girl′ful·ly (gûrl′fŏŏl·ĭ; -f'l·ĭ), *adv.* With the spirit of a girl.

girl guide. A member of the **Girl Guides** (see GIRL SCOUT).

girl′hood (gûrl′hŏŏd), *n.* State or time of being a girl; also, girls collectively.

girl′ish, *adj.* Like, or characteristic of, a girl; of or pert. to a girl or girlhood; artless; immature; as, *girlish* ways, grief. — **girl′ish·ly,** *adv.* — **girl′ish·ness,** *n.*

girls′-and-boys′, *n. sing. & pl.* Dutchman's-breeches; also, the related squirrel corn.

girl scout. A member of the **Girl Scouts**, an American organization of girls, formed by Juliette Low in Savannah, Ga., in 1912, under the name of "Girl Guides." It became a national organization in 1913, the name being changed to "Girl Scouts." Any girl over ten is eligible, and she passes through the same three classes as do boy scouts.

girl's mercury. The staminate plant of the dog's mercury.

girl′y (gûr′lĭ), *adj.* Girlish.

girn (gûrn; gĭrn), *v. i.*; GIRNED (gûrnd; gĭrnd); GIRN′ING. [Var. of GRIN to snarl.] To snarl; whine; grin. *Obs. exc. Dial.* — *v. t.* To show (the teeth) as in rage; to utter with a grin or snarl. *Scot. & Dial. Eng.*

girn, *n.* A snarl; also, a grin. *Obs. exc. Dial.*

girn (gûrn; gĭrn). Dial. var. of GRIN, snare.

gir′nel, gir′nal (gĭr′n'l), *n.* [Var. of GARNEL.] A granary; also, a large meal chest. *Scot.*

gir′nel, gir′nal, *v. t.* To store in a granary. *Obs. Scot.*

girn′y (gûr′nĭ; gĭr′-), *adj.* Fretful. *Chiefly Scot.*

‖**gi′ro** (jē′rō), *n.* [It.] A tour; round; turn.

‖**Gi′ro** (zhē′rō; jē′rō), *n.* [G., fr. It. *giro* circulation, fr. L. *gyrus*. See GYRE.] *Finance.* A system of credit transfers between banks, first developed in 1619, by the Giro Bank of Hamburg, now widely used by the Reichsbank. It is the basis of the transfer system of the United States Federal reserve banks.

gi′ro (jī′rō), *n.* Short for AUTOGIRO.

Gi·ron′dist (jĭ·rŏn′dĭst), *n.* [F. *Girondiste.*] A member of the moderate republican party formed in the French legislative assembly in 1791, called ***the Gi′ronde′*** (zhē′rōnd′; *E.* jĭ·rŏnd′) because the leaders were deputies from the Department of Gironde. — *adj.* Of or pertaining to the Girondists. — **Gi·ron′dism** (jĭ·rŏn′dĭz'm), *n.*

gi·rou·ette′ (zhē′rōō·ĕt′), *n.* [F.] A weathercock. — **gi′rou·ett′ism** (zhē′rōō·ĕt′ĭz'm), *n.*

Gir′ru (gĭr′ōō), *n.* [Bab., lit., fire, heat.] *Babylon. Relig.* God of fire, often invoked in incantations against sorcery.

girse (gûrs; gĭrs), *n. & v.* Girth. *Obs. exc. Dial.*

girse. Scot. & N. of Eng. var. of GRASS.

girt (gûrt), *past tense & past part.* of GIRD. Hence: *adj.* **1.** Encircled, fastened, or secured by a girdle, etc. **2.** With *up:* Prepared; hence, eagerly active; striving. **3.** *Naut.* Bound by a cable; — used of a vessel moored with such short cables that she strikes against one.

girt (gûrt), *n.* = GIRTH, in various senses; specif.: **a** Measure around or across a curved or broken surface, as a molding, ascertained by following its profile. **b** A girder, esp., in housebuilding, the heavy timber framed into the second-floor corner posts as a footing for the roof rafters. **c** *Carp. & Mach.* A fillet. **d** *Civ. Engin.* A horizontal member running from column to column or from bent to bent of a building frame or a trestle to stiffen the framework and, in a building, to carry the siding material

girt (gûrt), *v.*; GIRT′ED; GIRT′ING. [From GIRT, *n.*; cf. GIRTH, *v.*] *Transitive:* **1.** To gird (in any of various senses); to encircle; to equip, invest, or fasten by a girdle. **2.** To fasten by means of a girth; also, to besiege

gi·raff′esque′, *adj.* See -ESQUE.
gi′ral. Gyral. *Ref. Sp.*
gi·ran′do·la (jĭ·răn′dō·lȧ), *n.* [It.] = GIRANDOLE.
girasol thorn. = JERUSALEM THORN b.
girder erector. See ERECTOR.
gir′der·less, *adj.* See -LESS.
girder riveter. See RIVETER.
gird′ing·ly, *adv.* of *girding*, pres. part. of GIRD.
gir′dle·like′, *adj.* See -LIKE.
gi′reh (gē′rĕ). Var. of GERAH. See MEASURE, *Table.*
girl′ie, *n.* Dim. of GIRL, *n.*, 2.
girl′i·ness, *n.* See -NESS.
gir′ling (gûr′lĭng). Local Eng. var. of GILLING.
girl′ism (gûrl′ĭz'm), *n.* See -ISM.
girl′like′, *adj.* See -LIKE.
girl′-shy′, *adj.* See -SHY.
gir′o·flore′. Pseudoarchaic var. of GILLYFLOWER.
gi′ron, gi′ron·ny, etc. Vars. of GYRON, GYRONNY, etc.
Gi′ron′din′ (zhē′rôN′dăN′; jĭ·rŏn′dĭn), *n. & adj.* [F.] = GIRONDIST.
gi·ron′do·la. † GIRANDOLA.
gi′ro·scope. Gyroscope. *Ref. Sp.*
girosol. † GIRASOL.
gi′ro·stat. Gyrostat. *Ref. Sp.*
girr (gĭr), *n.* = GIRD, a hoop. *Scot.*
girsh (gĭrsh), *n. sing. & pl.* [Ar.] See COIN, *Table.*
gir′sle (gûr′s'l; gĭr′s'l). Scot. & N. of Eng. var. of GRISTLE.

bi′pin·nat′i·fid (bī′pĭ-năt′ĭ-fĭd), *adj.* [*bi-* + *pinnatifid.*] Pinnatifid with the segments or divisions also pinnatifid.

bi′pin·nat′i·part′ed (-pär′tĕd; -tĭd; 119), **bi′pin·nat′i·par′tite** (-pär′tīt), *adj.* [*bi-* + *pinnatiparted*, *-partite.*] *Bot.* Twice pinnately parted; — differing from *bipinnatifid* in having the divisions extending nearly to the midrib.

bi′pin·nat′i·sect (-năt′ĭ-sĕkt), **bi′pin·nat′i·sect′ed** (-sĕk′tĕd; -tĭd; 119), *adj.* [*bi-* + *pinnatisect.*] *Bot.* Twice pinnately cut or divided; — differing from *bipinnatiparted* in having the divisions extending to the midrib, but sessile. When the segments are stalked or otherwise wholly distinct, the leaf is *bipinnate.*

bi·pla′nal har′mo·ny (bī-plā′năl; -n′l). *Music.* The union of two simultaneous streams of harmonic progression, either in two different keys or in atonal relation.

bi·pla′nar (bī-plā′nẽr), *adj.* Lying in two planes.

biplanar node. *Math.* = BINODE.

biplanar point of a surface. *Math.* A double point at which the proper cone of tangent lines degenerates into two intersecting planes. See CONICAL POINT.

bi′plane′ (bī′plān′), *n.* [*bi-* + *plane.*] An airplane with two main supporting planes, in typical forms one above the other.

bi′pli·cate (bī′plĭ-kāt; bī′plĭ-), *adj.* [*bi-* + *plicate.*] *Bot.* Twice folded transversely. — **bi·plic′i·ty** (bī-plĭs′ĭ-tĭ), *n.*

bi·plo′sion (bī-plō′zhŭn), *n.* [*bi-* + *explosion*, *implosion.*] *Phonet.* The combined effect produced by the percussive shutting off and subsequent explosive release of the breath in the formation of a stop. See *Pron.*, § 44. — **bi·plo′sive** (-sĭv), *adj. & n.*

bi′pod (bī′pŏd), *n.* [*bi-* + *-pod* as in tri*pod.*] A two-legged stand or mount, as for a trench mortar or machine gun.

bi·po′lar (bī-pō′lẽr), *adj.* **1.** Having or pertaining to two poles; as, a *bipolar* dynamo or neuron.
2. Pertaining to or associated with the polar regions; as, the *bipolar* distribution of certain marine organisms found only north and south of an equatorial or median zone.

bi′po·lar′i·ty (bī′pō-lăr′ĭ-tĭ), *n.* State or quality of being bipolar; specif.: **a** *Biogeog.* Identity or similarity between fauna of northern regions and that of southern, the fauna of the intervening regions being different. **b** *Psychoanalysis.* Ambivalence.

Bi′pont (bī′pŏnt), **Bi·pon′tine** (bī-pŏn′tīn; -tĭn), *adj. Bibliog.* Relating to Zweibrücken, or Deuxponts (Lat. *Bipontium*), in Bavaria; — said of certain editions of the classics, the first printed at Zweibrücken, and the last at Strasbourg, in the last quarter of the 18th century.

bi·po′rose (bī-pō′rōs), **bi·po′rous** (-pō′rŭs; 181), *adj.* [*bi-* + L. *porus* pore.] Having two pores or openings.

bi′prism (bī′prĭz′m), *n.* [*bi-* + *prism.*] **a** A prism the principal section of which is a triangle with one very obtuse and two equal acute angles, used to obtain two images of a single source; — called usually *Fresnel biprism.* **b** A combination of two short rectangular glass prisms cemented together at their diagonal faces so as to form a cube; — called also *optical cube.* It is used in one form of photometer.

bi′prong′ (bī′prŏng′), *n.* A fork with two prongs.

bi·punc′tal (bī-pŭngk′tăl; -t′l), *adj.* Having, or pert. to, two points.

bi·punc′tate (-tāt), *adj.* *Bot.* Marked with two spots.

bi·punc′tu·al (-tṳ-ăl), *adj.* Bipunctate.

bi·pu′pil·late (bī-pū′pĭ-lāt), *adj.* Having two dots resembling pupils; — of spots on the wings of butterflies.

bi·pyr′a·mid (-pĭr′ȧ-mĭd), *n.* A bipyramidal form or crystal.

bi′py·ram′i·dal (bī′pĭ-răm′ĭ-dăl; -d′l), *adj.* *Cryst.* Consisting of two pyramids placed base to base; having a pyramid at each of the extremities of a prism, as quartz crystals.

bi·pyr′i·dyl (bī-pĭr′ĭ-dĭl), **bi·pyr′i·dine** (-dēn; -dĭn), *n.* *Chem.* [*bi-* + *pyridyl*, *pyridine.*] Any of several compounds, $C_{10}H_8N_2$, the molecule of which is a doubled pyridyl radical.

bi′quad·ran′tal (bī′kwŏd-răn′tăl; -t′l), *adj.* *Math.* Of or pertaining to two quadrants.

biquadrantal versor. A versor that turns all points in space about a given axis through two right angles.

bi·quad′rate (bī-kwŏd′rāt), *n.* [*bi-* + *quadrate.*] *Math.* The fourth power, or the square of the square. Thus, $4 \times 4 = 16$, and $16 \times 16 = 256$, the *biquadrate* of 4.

bi·quad′rate (-rāt), *v. t.* To raise to the fourth power. *R.*

bi′quad·rat′ic (bī′kwŏd-răt′ĭk), *adj.* [*bi-* + *quadratic.*] *Math.* Of or pertaining to the biquadrate, or fourth power. — *n.* **a** A biquadrate. **b** A biquadratic equation.

biquadratic equation. *Math.* An equation of the fourth degree, or an equation in which the highest power of the unknown quantity is the fourth, it being supposed that only positive integral powers of the unknown are involved.

biquadratic parabola. *Math.* A curve whose equation in Cartesian co-ordinates is $y = ax^4$.

biquadratic root. *Math.* A square root of a square root; fourth root; as, 3 is a *biquadratic* root of 81.

biquadratic transformation. *Math.* A transformation expressing the variables of one system as biquadratic functions of the variables of a second system.

bi·quar′ter·ly (bī-kwôr′tẽr-lĭ), *adj.* Appearing twice every three months.

bi′quartz (bī′kwôrts), *n.* [*bi-* + *quartz.*] *Mineral.* A quartz plate of two sections which turn the plane of polarization in opposite directions. It is used with a polariscope.

bi·quin′tile (bī-kwĭn′tĭl; -tīl; 155), *n.* [*bi-* + *quintile.*] *Astrol.* An aspect of the planets when their positions are twice the fifth part of a great circle apart, that is, at an angle of 144 degrees.

bi·ra′di·al (bī-rā′dĭ-ăl), *adj.* *Biol.* Both bilateral and radial in arrangement.

bi·ra′di·ate (bī-rā′dĭ-āt), **bi·ra′di·at′ed** (-āt′ĕd; -ĭd; 119), *adj.* [*bi-* + *radiate.*] Having two rays.

bi·ra′mous (bī-rā′mŭs), *adj.* Also **-mose** (-mōs). [*bi-* + *ramous*, *ramose.*] Having, or consisting of, two branches.

bi·ra′tion·al (bī-răsh′ŭn-ăl, -′l), *adj.* *Math.* Pertaining to or designating an algebraic transformation in which each set of variables is expressed rationally through the other set. A one-to-one correspondence exists between the two sets of variables.

birch (bûrch), *n.*; *pl.* BIRCHES (bûr′chĕz; -chĭz; 119). [ME. *birche*, *birk*, fr. AS. *birce*, *bierce*, *beorc*; akin to ON. *björk*, Dan. *birk*, D. *berk*, OHG. *birihha*, G. *birke*, Russ. *bereza*, Lith. *beržas*, Skr. *bhūrja* birch, L. *farnus*, *fraxinus*, ash tree, and to E. BRIGHT.] **1. a** Any tree of the genus *Betula*, the species often being indicated by an adjective, as *white birch*, *river birch*, etc. Birches are valuable timber trees, most of them having a hard close-grained wood which takes a fine polish. The smooth outer bark of the sweet, or cherry, birch is spicy and aromatic; that of the white birch of Europe is used for tanning; that of the paper birch splits into thin plates having a good writing or drawing surface. Several varieties of the white birch are cultivated for ornament. See BETULA; also PAPER BIRCH, WHITE BIRCH, RIVER BIRCH, YELLOW BIRCH, SWEET BIRCH. **b** In Australia, the piripiri. **c** In New Zealand, any of various trees considered to resemble true birches, esp. the towai. The name *birch* (qualified by various adjectives, as *white*, *black*, *red*, *silver*, etc.) is given to the native beech (*Nothofagus*) and to many small-leaved forest trees. **d** In tropical America, the gumbo limbo.
2. The wood or timber of the birch.
3. A birch rod or twig, or a bundle of them, for flogging.
4. A canoe made of birch bark.

birch (bûrch), *adj.* Of or pert. to the birch; made of birch.

birch, *v. t.* To whip with a birch rod or twig; to flog.

birch′bark′ (bûrch′bärk′), *n.* A canoe made of birch bark.

birch beech. An evergreen tree (*Nothofagus betuloides*) of southern South America, resembling the birch.

birch beer. A fermented liquor of very small alcoholic content made from ferments of extracts from the birch. Also, a nonalcoholic carbonated beverage flavored to resemble it.

birch borer. Any beetle larva which bores in the wood of birch trees, esp. the *bronze birch borer* (*Agrilus anxius*), which burrows just beneath the bark.

birch camphor. *Chem.* Betulinol.

birch′en (bûr′chĕn), *adj.* Of, pert. to, or relating to, birch.

birch family. The Betulaceae.

birch′ing, *n.* **1.** A whipping with a birch; a flogging.
2. The cutting and hauling of birch timber. *U. S.*

birch′-leaf′ ma·hog′a·ny. The hardtack.

birch-leaf skeletonizer. The birch skeletonizer.

birch′man (bûrch′măn), *n.* A schoolmaster. *Humorous.*

birch of Jamaica. = GUMBO LIMBO **a.**

birch oil. a A brown oil obtained by distillation of the bark of the European white birch, used in finishing Russia leather (to which it gives the characteristic odor), and sometimes in medicine. **b** An essential oil from the sweet birch. It consists almost entirely of methyl salicylate, and is usually sold as *oil of wintergreen.*

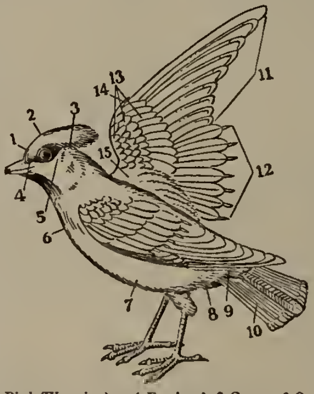
birch partridge. The ruffed grouse. *Local.*

birch skeletonizer. A small tineoid moth (*Bucculatrix canadensisella*) whose larva attacks birch leaves.

birch wine. Wine made of the spring sap of the birch.

birch′wood′ (bûrch′wŏŏd′), *n.* **1.** The wood of the birch.
2. A wood or grove of birch trees.

bird (bûrd), *n.* [ME. *brid*, *bred*, *bird*, young bird, bird, fr. AS. *bridd* young bird.] **1. a** *Now Rare.* The young of a feathered vertebrate (a bird in sense 2), as a chick, eaglet, or duckling; a nestling. **b** *Obs.* The young of mammals, reptiles, fishes, insects. "A serpent . . . brought forth his *birds* there." *Gesta Romanorum.* **c** The human young; a youngster. *Obs.*, except in the specific sense of a girl or maiden (early confused with BURN, and perhaps with BRINE), which has come to be understood as figurative or as a term of endearment.
2. Any member of a class of warm-blooded vertebrates, distinguished from all other animals by the body being more or less completely covered with feathers. Birds are the most highly developed animals excepting the Mammalia. They are descended from the reptiles, which they resemble anatomically, and with which they form the group Sauropsida (see SAUROPSIDA). They have a four-chambered heart and fully separated pulmonary and systemic blood circulations, and one aortic arch (the right). They are oviparous, laying very large eggs with a hard chalky shell. The fore limbs are modified into wings (sometimes vestigial), fitted for flight (in flying birds) by means of feathers, instead of folds of skin or membranes, as in all other flying animals. Existing birds have the jaws or bill covered with a horny or leathery sheath, but no teeth; and in most cases the breastbone has a deep ridge or keel for the attachment of the pectoral muscles which move the wings. There are often extensive air cavities under the skin and in certain bones, which communicate with the lungs. The class Aves, which includes all birds, is divided into the following primary subdivisions:



Bird (Waxwing). 1 Forehead; 2 Crown; 3 Occipital Region; 4 Lore; 5 Auricular Region; 6 Breast; 7–8 Abdomen; 9 Crissum (Under Tail Coverts); 10 Tail (Rectrices); 11 Primaries; 12 Secondaries; 13 Upper Wing Coverts; 14 Alula, or Bastard Wing; 15 Scapulars.

Feet of Birds. *a* Pamprodactyl (Swift); *b* Scansorial or Zygodactyl (Cuckoo); *c* Rasorial (Fowl); *d* Insessorial (Finch). *e* Syndactyl (Kingfisher); *f* Raptorial (Hawk); *g* Grallatorial (Stork); *h* Cursorial (Ostrich); *i* Palmate (Duck); *k* Semipalmate (Sandpaper); *l*, *m* Lobate (Grebe and Cool); *n* Totipalmate (Pelican).

Subclass I. Archaeornithes. Includes only the extinct *Archaeopteryx* and *Archaeornis.*
Subclass II. Neornithes.
Superorder Odontognathae. Extinct toothed swimming birds. Includes *Hesperornis* and *Ichthyornis.*
Superorder Palaeognathae. Birds with a primitive or dromaeognathous palate. Includes the flightless ostriches, emus, apteryxes, etc., of the old division Ratitae, and also the tinamous.
Superorder Neognathae. Birds with a less reptilian palate, in which the vomer is reduced and the basipterygoid processes are small or absent; nearly all have a keeled breastbone and are capable of flight. Includes all existing birds except the Palaeognathae.

3. Specif., among sportsmen, a game bird.
4. A saucer of pottery or other material, made to be thrown from a spring trap, and used as a substitute for a live bird in trapshooting; a clay pigeon.
5. *Slang.* **a** A fellow, chap, or guy; as, a queer *bird.* **b** Something to excite admiration; as, a *bird* of a scheme.

☞ *Bird* is used in many combinations, phrases, proverbs, and figurative senses, based originally upon real or supposed habits or characteristics of birds, as: in sense **5 a** above, in jail*bird*; in ***the bird in one's bosom***, one's secret or secret thought, one's conscience; ***a bird of one's own brain***, one's own idea; ***a bird in the hand***, a present or possessed advantage or good; ***birds of a feather***, birds or persons of like character; ***a little bird tells me***; etc.

☞ COMBINATIONS and PHRASES are:

bird augury	bird-fingered	bird refuge
birdcatcher	bird food	bird-ridden
birdcatching	birdland	bird sanctuary
birdcraft	birdlore	bird shop
bird-faced	bird net	bird song
bird fancier	bird preserver	bird stuffer

bird (bûrd), *v. i.* To catch or shoot birds.

bird′band′er (bûrd′băn′dẽr), *n.* One who bands birds. See BAND, *v. t.*, 1. — **bird′band′ing** (-dĭng), *n. & adj.*

bird′bath′ (bûrd′bȧth′), *n.* An artificial bath, as in gardens, for birds to bathe in.

bird′-bat′ting (-băt′ĭng), *n.* Batfowling. *Dial. Eng.*

bird bell. The rattlesnake root *Prenanthes altissima.*

bird′ber′ry (bûrd′bĕr′ĭ; -bẽr-ĭ), *n.* = PEPPER VINE **b.**

bird bolt. A short blunt bolt, or arrow, for killing birds without piercing them.

bird brier. The dog rose.

bird cactus. = SLIPPER PLANT **a.**

bird cage, *or* **bird′-cage′**, *n.* **1.** A cage for confining birds.
2. A wire cage for dice, which is merely reversed to make the throws, usually ringing a bell as it turns over.
3. *Horse Racing.* The paddock in which horses are usually saddled at a racecourse. *Brit.*

bird′call′ (bûrd′kôl′), *n.* The note or cry of a bird, or a sound made in imitation of it; also, any instrument, as a whistle, used in imitating a birdcall.

bird cherry. a A European cherry tree (*Padus avium*); also, its small black fruit. **b** = PIN CHERRY **a.**

bird′clap′per (bûrd′klăp′ẽr), *n.* A kind of scarecrow. *Dial.*

Bird Day. A day, usually combined with Arbor Day, set aside in some States of the United States for the study, by schools, of wild birds and their protection.

bird dog. A gun dog trained to point, or to retrieve birds, for the hunter.

bird duffer. One who artificially colors or otherwise disguises live birds or birds' skins to promote their sale.

bird eagles. [Lit., bird haws (cf. BIRD CHERRY), fr. dial. *agle*, dim. of *hag*, *hague.* See HAGUE (*pron.*), 1st HAW.] The fruit of the hawthorn *Crataegus oxyacantha.*

bird-een′ (bẽr-dēn′), *n.* [From BIRD. See -EEN.] Birdie. *Ir.*

bird′-egg′ pea. A milk vetch (*Phaca longifolia*) of the western United States, having an ovoid inflated pod.

bird′er (bûr′dẽr), *n.* **a** *Obs.* A birdcatcher. **b** A breeder of birds. *Carlyle.*

bird eye. = CUCKOOFLOWER **a.**

bird′-eyed′ (bûrd′īd′), *adj.* Having eyes like those of a bird; hence, quick-sighted.

bird flower. a The bird-of-paradise flower. **b** Any of several flowers the pollination of which is accomplished by birds (usually hummingbirds); esp., in eastern America, the Oswego tea and the cardinal flower. **c** The bird plant.

bird fly. = BIRD TICK.

bird font. A birdbath.

bird′-foot′ (bûrd′fŏŏt′), *n.* = BIRD'S-FOOT.

bird′glue′ (-glōō′; 242), *n.* = BIRDLIME, 1 & 2.

bird grape. A wild grape (*Vitis munsoniana*) of Florida and the Bahamas, closely related to the muscadine.

bird grass. a The knotgrass *Polygonum aviculare.* **b** A European forage grass (*Poa trivialis*) naturalized in eastern North America.

bird′house′ (bûrd′hous′), *n.* **a** A small house or box for birds to nest in. **b** A building where birds are exhibited.

bird′ie (bûr′dĭ), *n.* **1.** A little bird; — a pet name.
2. Hence [*cap.*], a feminine proper name. Cf. 1st BIRD, **1 c.**
3. [See BIRD, **5 b**; 2d -Y.] *Golf.* A score of one stroke less than par on a hole.

bird′i·kin (bûr′dĭ-kĭn), *n.* A young bird.

bird′ing (bûr′dĭng), *n.* Birdcatching or fowling. *Shak.*

birding piece. A fowling piece. *Shak.*

bird′-in-the-bush′, *n.* The prickly poppy.

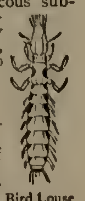
bird knotgrass. = KNOTGRASS **a.**

bird life. Birds generally and their activities and habits.

bird′lime′ (bûrd′līm′), *n.* [*bird* + *lime* viscous substance.] **1.** An extremely adhesive viscid substance, usually made from the bark of the holly (*Ilex aquifolium*), but also from other plants, as the European mistletoe, breadfruit, etc.; — so called from its use on twigs to snare small birds.
2. Hence, anything that ensnares.
3. *Bot.* The cleavers *Galium aparine.*

bird′lime′, *v. t.* To smear with or as with birdlime; to catch with birdlime; to ensnare.

bird louse. Any of numerous wingless insects of the order Mallophaga, mostly parasitic on birds, a few on mammals. Their mouths are adapted to biting, not sucking, as in true lice, and they feed on the feathers or hair, skin, etc., of the host, often causing injury. Several species occur on domesticated birds: *Menopon gallinae* on the fowl, *Lipeurus gallipavonis* on the turkey, and *Trinoton querquedulae* and *Philopterus dentatus* on ducks.


Bird Louse (*Trinoton querquedulae*). Much enlarged.

bird malaria. A fever of birds and poultry, caused by a protozoan (*Plasmodium danilewskyi*) and characterized by depression, emaciation, and dulling of the plumage.

bird′man′ (bûrd′măn′; -măn), *n.* **1.** One who deals with birds, as a fowler, ornithologist, taxidermist of birds, etc.
2. An aviator; airman. *Colloq.*

bird mite. Any of numerous small mites parasitic upon birds, esp. *Dermanyssus avium*, infesting cage birds, and *D. gallinae*, infesting poultry.

Bird Mite (*Dermanyssus avium*). Much enlarged.

bird′mouthed′ (bûrd′moutht′; -moutht′), *adj.* Having a mouth resembling a bird's bill. Hence,

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bipunctal co-ordinates. *Math.* See CO-ORDINATE, *n.*, 2.
bi·ra′cial, *adj.* See RA-, 1 a. — **bi·ra′cial·ism**, *n.*
birall. † BERYL.
birch′-bark′ call = MOOSECALL.
birch′-bark′ oil. = BIRCH OIL **a.**
birch′-tar′ oil. = BIRCH OIL **a.**
bird′bolt′ (bûrd′bōlt′), *n.* Corrupt. of BURBOT.
bird′dom, *n.* See -DOM.
bird′-eye′ (bûrd′ī′). Var. of bird's-eye, *adj.* *Burke.*
bird′hood, *n.* See -HOOD.
bird′less, *adj.* See -LESS.
bird′let, *n.* See -LET.
bird′like′, *adj.* See -LIKE.
bird′ling, *n.* See -LING, dim. suff.

COMMON BIRDS OF AMERICA

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CONSTELLATIONS AND STARS—NORTHERN HEMISPHERE

CONSTELLATIONS AND STARS—SOUTHERN HEMISPHERE

con·spir′a·tor (kŏn·spĭr′ȧ·tẽr), *n.* [AF. *conspiratour* (F. *conspirateur*), fr. L. *conspirator*.] One who conspires, esp. treasonably; a plotter.
Syn. — Schemer. See ABETTOR.

con·spir′a·to′ri·al (kŏn·spĭr′ȧ·tō′rĭ·ăl; 181), **con·spir′a·to′ry** (-spĭr′ȧ·tō′rĭ; -tẽr·ĭ), *adj.* Of, pert. to, or characteristic of, conspiracy or conspirators. — **-to′ri·al·ly**, *adv.*

con·spire′ (kŏn·spīr′), *v.*; -SPIRED′ (-spīrd′); -SPIR′ING (-spīr′ĭng). [OF. *conspirer*, fr. L. *conspirare* to blow together, harmonize, agree, plot, fr. *con-* + *spirare* to breathe, blow. See SPIRIT.] *Intransitive*: **1.** To make an agreement, esp. a secret agreement, to do some act, as to commit treason or a crime, or to do some unlawful deed; to plot together; also, formerly, of one person, to contrive or plot secretly.
They *conspired* against him [Joseph] to slay him. *Gen.* xxxvii. 18.
2. To concur or work to one end; act in harmony.
Tho' wit and art *conspire* to move your mind. *Pope.*
3. To breathe together or in accord, as in singing. *Latinism.*
——, *Transitive*: **1.** To plot; plan; combine for.
Angry clouds *conspire* your overthrow. *Bp. Hall.*
2. To unite in contributing or concurring to. *Obs.*
Syn. — Unite, plot, confederate. See CO-OPERATE.

con·spir′er (-spīr′ẽr), *n.* A conspirator.

con·spir′ing (-ĭng), *adj.* Plotting together or secretly; acting in harmony. — **con·spir′ing·ly**, *adv.*

‖**con spi′ri·to** (kōn spē′rē·tō). [It.] *Music.* With spirit or animation; — a direction.

con·spue′ (kŏn·spū′), *v. t.* [L. *conspuere.*] To spurn with contempt, as if by spitting upon.

con′sta·ble (kŭn′stȧ·b'l; kŏn′-), *n.* [ME. *conestable*, *constable*, a constable (in sense 1), fr. OF. *conestable* (F. *connétable*), fr. LL. *comes stabuli*, orig., count of the stable, master of the horse, equerry, fr. *comes* count (L. companion) + L. *stabulum* stable. See COUNT a nobleman; STABLE.] **1.** A high officer in the monarchial and princely establishments of the Middle Ages. Originally chief groom of the stable, the constable later became the chief officer of the household, army, or the like. The **Constable of France** became the first officer of the crown, and as such commander in chief of the army and supreme judge of the military courts and the courts of chivalry. The **Constable**, or **Lord High Constable, of England** was commander in chief of the forces, and a high judicial officer. The **Constable of Scotland** was a similar officer.
2. The warden or keeper of a royal castle or fortress or of a fortified town. The office survives as the official title of the warden of the Tower of London and of Dover and Windsor castles, appointed by the crown.
3. Orig., a military officer; now, any of various officers having power as a conservator of the public peace, and bound to execute the warrants of judicial officers; a policeman.
4. Specif., In Great Britain: **a** The ***high constable***, an officer of a hundred or other large district originally charged with certain military duties. The office became practically obsolete as the result of the High Constable Act of 1869. **b** The ***petty constable***, a parish or township officer appointed as conservator of the peace, to execute the process of the justices of the peace, etc. The petty constable has now been generally superseded by the county police. **c** A member of the county police, also called the ***county constabulary***, the chief officer of which is called the ***chief constable***. **d** Any of several officials of the Channel Islands, Jersey, or Guernsey, with somewhat similar functions.

con′sta·ble·wick′ (-wĭk′), *n.* [*constable* + *wick* a village.] The office, jurisdiction, or district of a constable.

con·stab′u·lar′y (kŏn·stăb′ū·lẽr′ĭ *or*, *esp. Brit.*, -lẽr·ĭ), *adj.* [ML. *constabularius.*] Of or pert. to a constable; consisting of constables. — **con·stab′u·lar** (-lẽr), *adj.*

con·stab′u·lar′y, *n.*; *pl.* -IES (-ĭz). **1. a** *Obs.* The office of a constable. **b** A constablewick.
2. The collective body of constables in any town, district, or country.
3. An armed force of a civil government, distinct from the regular army; a police force organized on military lines; as, the Philippines *Constabulary.*

Con′stance (kŏn′stăns), *n.* [F., fr. L. *Constantia*, prop., firmness, constancy. See CONSTANCY.] **1.** Fem. proper name. L. *Constantia* (kŏn·stăn′shĭ·ȧ; -shȧ); F. *Constance* (kôɴ′stäɴs′); It. *Costanza* (kō·stänt′sä); Sp. *Costenza* (kō·stĕn′thä; 267), *Constanza* (kōn·stän′thä); Pg. *Constancia* (kôɴ·stäɴ′sē·ȧ); G. *Konstanze* (kōn·stänt′sē); G. & D. *Constantia* (G. kōn·stänt′sĭ·ä; D. -stän′tĭ·ä).
2. In Shakespeare's *King John*, the devoted, strong-minded, widowed mother of Prince Arthur.
3. See COUNCIL, *Table.*

con′stance, *n.* [OF.] Constancy. *Obs.*

con′stan·cy (kŏn′stăn·sĭ), *n.* [L. *constantia.* See CONSTANT.] **1.** Steadfastness or firmness of mind; persevering resolution; esp., firmness under sufferings; also, steadiness in attachments; fidelity.
Constancy and contempt of danger. *Prescott.*
A joyless eye That finds no object worth its *constancy.* *Shelley.*
2. Freedom from change; stability; uniformity.
3. A thing that is permanent; a permanency.
It would not do for a *constancy.* *Jane Austen.*
4. A habitual practice. *Southern U. S.*
5. *Obs.* **a** Certainty. **b** Persistence. **c** Determination.
Syn. — Attachment, adherence, faith, steadfastness; loyalty, fealty, allegiance; truth, honesty, integrity; devotedness, ardor, eagerness, earnestness, zeal. — CONSTANCY, FIDELITY, FAITHFULNESS, DEVOTION. CONSTANCY, as here compared (see FIRMNESS), implies steadfastness of attachment or adherence, esp. in love or friendship; as, "While thou livest, dear Kate, take a fellow of plain and uncoined *constancy*; for he perforce must do thee right, because he hath not the gift to woo in other places" (*Shak.*). FIDELITY implies unswerving loyalty or allegiance, not only to a person, but also to a principle, a duty, a trust; as, "Who, being a simple hearted woman, with but one rule of faith and right, never thought of swerving from her *fidelity* to the exiled family" (*Thackeray*); "*Fidelity* to engagements is a virtue" (*Bentham*). *Fidelity* is often used of exact adherence or literal correspondence to an original; as, "There are minutiae in every language which transfused into another will spoil the version. Such extreme *fidelity* is in fact unfaithful" (*Cowper*). FAITHFULNESS frequently implies a warmer or more personal relation than *fidelity*; as, "To show forth thy loving-kindness in the morning, and thy *faithfulness* every night" (*Ps.* xcii. 2). DEVOTION, as here compared (cf. DEVOUT), suggests great strength or ardency of attachment or loyalty; as, "It shows my earnestness of affection . . . my *devotion*" (*Shak.*). Cf. LOYALTY, ATTACHMENT.
Ant. — Perfidy, disloyalty, fickleness, vacillation.

con′stant (kŏn′stănt), *adj.* [OF., fr. L. *constans*, *-antis*, pres. part. of *constare* to stand firm, to be consistent, fr. *con-* + *stare* to stand. See STAND; cf. COST, *v.*] **1.** Firm or steadfast; resolute; also, faithful; true; as, *constant* friends. "I am *constant* to my purposes." *Shak.*
2. Fixed or invariable; uniform; *Math. & Physics*, remain ing unchanged or invariable, as a quantity, force, law, error.
The *constant* image of the creature that is beloved. *Shak.*
3. Continually recurring; regular; persistent; perpetual.
The *constant* creaking of a country sign. *Cowper.*
4. *Obs.* **a** Firm or steady; immovable; solid. **b** Confident; positive; also, certain. **c** Permanent.
Syn. — See CONTINUAL. **Ant.** — See CAPRICIOUS, FICKLE.

con′stant, *n.* **1.** [L. *Constans.* See CONSTANT, *adj.*] [*cap.*] Masculine proper name. L. *Constans* (kŏn′stănz), *Constantius* (kŏn·stăn′shĭ·ŭs); It. *Costante* (kō·stän′tä), *Costanzo* (kō·stänt′sō); Sp. *Constancio* (kōn·stän′thyō; 103); G. *Konstanz* (kŏn′stänts).
2. Fig., anything invariable or not subject to change.
3. *Educ.* A course of study required of all pupils in a given grade or school; — contrasted with *variable.*
4. *Math.* A magnitude that is supposed not to change its value in a certain discussion or stage of investigation; — distinguished from a *variable*; but constants at one stage of the investigation are often variables at another. A constant that has the same value under all circumstances, as the number 10, is called an ***absolute constant.***
5. *Physics, etc.* A numerical quantity expressing some physical law or magnitude as a fixed relation, or expressing a condition of adjustment of an instrument of precision, or a natural property or condition of a substance, which retains the same value throughout an investigation or process; as, the *constant* of aberration.
6. *Symbolic Logic.* A term whose denotation is invariant, as contrasted with a *variable.*

con′stant·an (kŏn′stăn·tăn), *n.* [Coined from CONSTANT, *adj.*] An alloy of nickel and copper, used in some electric resistance standards and in thermocouples.

constant error. See ERROR, 9.

Con′stan·tine (kŏn′stăn·tīn; -tēn), *n.* [L. *Constantinus.* Cf. 2d CONSTANT, 1.] Masc. proper name. L. *Constantinus* (-tī′nŭs); It. *Costantino* (kō′stän·tē′nō); Sp. & Pg. *Constantino* (*Sp.* kōn′stän·tē′nō; *Pg.* kôɴ′stäɴ·tē′nōō); G. *Konstantin*, *Constantin* (kōn′stän·tēn′).

Con′stan·tin′i·an (kŏn′stăn·tĭn′ĭ·ăn), *adj.* Of or pertaining to Constantine the Great or his period, about 306–337 A.D.

Con′stan·ti·no′ple o′pi·um (kŏn′stăn·tĭ·nō′p'l). See OPIUM, 1.

Con·stan′ti·no·pol′i·tan (kŏn·stăn′tĭ·nō·pŏl′ĭ·tăn), *adj.* Of, pertaining to, or connected with, Constantinople.

Constantinopolitan councils. See COUNCIL, *Table.*

Constantinopolitan Creed. See NICENE CREED.

Constantinopolitan rite. See LITURGY.

con′stant·ly (kŏn′stănt·lĭ), *adv.* In a constant manner; with constancy; esp., uniformly; continually.
But she *constantly* affirmed that it was even so. *Acts* xii. 15.

constant of aberration, *or* **aberration constant.** *Astron.* A number which by substitution in the general formula for aberration enables a calculation to be made of the effect of aberration on a star. Its value is 20.47″.

constant of gravitation. *Physics.* The acceleration produced by the attraction of a unit of mass at unit distance. It has been determined to be 6.6579×10^{-8} in C.G.S. units.

constant of nutation. *Astron.* The constant element of the formula by which the correction for nutation is calculated. Its value is 9.21″.

constant of precession. *Astron.* The average amount of the general precession. Its value for 1940 is 50.265″. It increases about 0.02″ per century.

constant of refraction. = SPECIFIC REFRACTIVE POWER.

con′stant–pres′sure–com·bus′tion en′gine, con′stant–vol′ume–com·bus′tion en′gine. See INTERNAL-COMBUSTION ENGINE.

constant quantity. *Math.* = CONSTANT, *n.*, 4.

constants of multiplication. *Math.* See *linear algebra* under ALGEBRA, *n.*, 2; MULTIPLICATION TABLE, 2.

constant white. = PERMANENT WHITE.

con′stat (kŏn′stăt), *n.* [L., it is evident.] *Law.* A certificate showing what appears upon record touching a matter in question; hence, popularly, positive evidence.

con·state′ (kŏn·stāt′), *v. t.* [F. *constater.* See CONSTAT.] To evidence positively; to establish; as, *constating* instruments. — **con·sta′tion** (kŏn·stā′shŭn), *n.* — **con′sta·to′ry** (kŏn′stȧ·tō′rĭ), *adj.*

con′stel·late (kŏn′stĕ·lāt), *v.*; -LAT′ED (-lāt′ĕd; -ĭd; 119); -LAT′ING (-lāt′ĭng). [LL. *constellatus*, past part., studded with stars. See STELLATE.] *Intransitive*: To join luster; to shine with united radiance, or one general light.
——, *Transitive*: **1.** *Astrol.* **a** *Obs.* To affect with stellar influence; also, to cast the horoscope of. **b** To fashion under, or be determined or destined by, an especial conjunction of planets.
2. To unite in one luster or radiance, as stars.
Who know how to *constellate* these lights. *Boyle.*
3. To set or adorn with stars or constellations; to stud.
Beyond Heaven's *constellated* wilderness. *Shelley.*

con′stel·late (-lāt), *adj.* Constellated.

con′stel·la′tion (kŏn′stĕ·lā′shŭn), *n.* [OF. *constellacion* (F. *constellation*), fr. LL. *constellatio.* See CONSTELLATE.] **1.** *Astrol.* Configuration of the stars, esp. at one's birth (cf. HOROSCOPE); hence, *Obs.*, character or disposition as determined by one's stars.
It is *constellation*, which causeth all that a man doeth. *Gower.*
2. Any one of a number of arbitrary groups of fixed stars, or a division (with imaginary outlines) of the stellar heavens including such a group. Each of the early constellations is named after some mythological personage, animal, or inanimate object whose image has a fancied correspondence to the configuration of the stars. In each of the constellations now recognized by astronomers (about 90 in number) the brightest stars, both named and unnamed, are designated usually in the order of brilliancy by the letters of the Greek alphabet; as, α Tauri (Aldebaran) is the brightest star of Taurus, γ Orionis (Bellatrix) is the third star of Orion in brightness.

CONSTELLATIONS NORTH OF THE ZODIAC.

Andromeda, the Chained Lady.	**Cepheus**, the Monarch.
Aquila, the Eagle.	**Coma Berenices**, Berenice's Hair.
Auriga, the Wagoner, or the Charioteer.	**Corona Borealis, Corona***, the Northern Crown.
Boötes, the Herdsman.	**Cygnus**, the Swan.
Camelopardalis, Camelopardus, Camellus*, the Giraffe.	**Delphinus**, the Dolphin.
Canes Venatici, the Hunting Dogs. [Chair.	**Draco**, the Dragon.
Cassiopeia, the Lady in the	**Equuleus**, the Foal.
	Hercules.

CONSTELLATIONS NORTH OF THE ZODIAC (*Cont.*)

Lacerta, the Lizard.	**Scutum (Sobieskii)**, the Shield of Sobieski.
Leo Minor, the Lesser Lion.	**Serpens**, the Serpent.
Lynx, the Lynx.	**Serpentarius** (see OPHIUCHUS).
Lyra, the Lyre.	**Triangulum**, the (Northern) Triangle. [Bear.
Ophiuchus, the Serpent Bearer (sometimes called *Serpentarius*).	**Ursa Major, Ursa***, the Great
Pegasus, the Winged Horse.	**Ursa Minor**, the Lesser Bear.
Perseus, Rescuer, or Champion.	**Vulpecula**, the Little Fox.
Sagitta, the Arrow.	

CONSTELLATIONS OF THE ZODIAC.

Aries, the Ram.	**Libra**, the Balance.
Taurus, the Bull.	**Scorpio**, the Scorpion.
Gemini, the Twins.	**Sagittarius**, the Archer.
Cancer, the Crab.	**Capricornus**, Capricorn.
Leo, the Lion.	**Aquarius**, the Water Bearer.
Virgo, the Virgin.	**Pisces**, the Fishes.

CONSTELLATIONS SOUTH OF THE ZODIAC.

Antlia (Pneumatica), the Air Pump.	**Hydrus**, the Water Snake.
Apus, the Bird of Paradise.	**Indus**, the Indian.
Ara, the Altar.	**Lepus**, the Hare.
Argo, Argo Navis, the Ship Argo; subdivided into: (1) **Carina**, the Keel; (2) **Malus**, the Mast; (3) **Puppis**, the Poop; (4) **Vela**, the Sails.	**Lupus**, the Wolf.
	Malus (see ARGO).
	Mensa, Mons Mensae, the Table Mountain.
	Microscopium, the Microscope.
Caelum, the Sculptor's Tool.	**Monoceros**, the Unicorn.
Canis Major, Canis*, the Dog.	**Musca**, the Fly.
Canis Minor, the Lesser Dog.	**Norma**, the Rule.
Carina (see ARGO).	**Octans**, the Octant.
Centaurus, the Centaur.	**Orion**, the Giant Hunter.
Cetus, the Sea Monster.	**Pavo**, the Peacock.
Chamaeleon, the Chameleon.	**Phoenix**, the Phoenix.
Circinus, the Compasses.	**Pictor**, the Painter's Easel.
Columba (Noae), Noah's Dove.	**Piscis Australis** (or **Austrinus**), **Piscis***, the Southern Fish.
Corona Australis, Corolla*, the Wreath.	**Puppis** (see ARGO).
	Reticulum, the Net.
Corvus, the Crow.	**Sculptor**, the Sculptor's Workshop.
Crater, the Cup.	
Crux, the Cross.	**Sextans**, the Sextant.
Dorado, the Goldfish, or the Swordfish. [(Po).	**Telescopium**, the Telescope.
Eridanus, the River Eridanus	**Triangulum Australe**, the (Southern) Triangle.
Fornax, the Furnace.	
Grus, the Crane.	**Tucana**, the Toucan.
Horologium, the Clock.	**Vela** (see ARGO).
Hydra, the Sea Serpent.	**Volans, Piscis Volans**, the Flying Fish.

* Proctor's abbreviated name (not extensively adopted).

3. Figuratively, an assemblage of splendors or excellences.
The *constellation* of genius . . . which was to shed a glory over the meridian and close of Phillip's reign. *Prescott.*
4. A pattern or arrangement; also, a set of things of any sort which have a characteristic pattern or arrangement.
5. *Psychol.* **a** An unrepressed complex. **b** An assemblage of stimuli and conditions affecting behavior.

con·stel′la·to′ry (kŏn·stĕl′ȧ·tō′rĭ *or*, *esp. Brit.*, -tẽr·ĭ), *adj.* Of the nature of, relating to, or resembling, constellation.

con′ster·nate (kŏn′stẽr·nāt), *v. t.* [L. *consternatus*, past part. of *consternare.*] To fill with consternation.

con′ster·na′tion (-nā′shŭn), *n.* [F. or L.; F. *consternation*, fr. L. *consternatio*, fr. *consternare* to overcome, perplex, an accessory form of *consternere* to throw down, prostrate, fr. *con-* + *sternere* to spread out, throw down. See STRATUM.] Amazed terror that confounds the faculties and incapacitates for reflection; bewildered trepidation.
Syn. — Alarm, horror, fright, amazement, panic. See FEAR.

con′sti·pate (kŏn′stĭ·pāt), *v. t.*; -PAT′ED (-pāt′ĕd; -ĭd; 119); -PAT′ING (-pāt′ĭng). [L. *constipatus*, past part. of *constipare.* See COSTIVE.] **1.** To crowd, cram, press together; to condense. *Now Rare.*
Of cold the property is to condense and *constipate.* *Bacon.*
2. *Med.* **a** *Obs.* To constrict or close, as tissues or pores; as, to *constipate* the capillary vessels. **b** To render costive; to cause constipation in.

con′sti·pa′tion (-pā′shŭn), *n.* [F. or L.; F. *constipation*, fr. LL. *constipatio* a crowding together.] **1.** *Obs.* **a** Contraction or constriction. **b** Compression; condensation.
2. A state of the bowels in which the evacuations are infrequent and difficult, or the intestines become filled with hardened feces; costiveness.

con·stit′u·en·cy (kŏn·stĭt′ū·ĕn·sĭ), *n.*; *pl.* -CIES (-sĭz). **1.** A body of constituents, as the body of citizens, voters, or residents in a representative district. Also, the district represented.
2. Any similar body, as of customers or subscribers. *Colloq.*

con·stit′u·ent (-ĕnt), *adj.* [F. or L.; F. *constituant*, fr. L. *constituens*, *-entis*, pres. part. See CONSTITUTE.] **1.** Serving to form, compose, or make up; component; also, *Obs.*, characteristic or distinctive.
Body, soul, and reason are the three parts necessarily *constituent* of a man. *Dryden.*
2. a Having power to elect or appoint. "A question of right arises between the *constituent* and representative body." *Junius.* **b** Having power to form or revise a constitution; as, a *constituent* assembly.
— **con·stit′u·ent·ly**, *adv.*

con·stit′u·ent, *n.* **1.** That which constitutes or composes, as a part, or an essential part; a component; an element; as, the *constituents* of matter or of character.
2. One who aids, as an elector, in the establishment of the rights of another as his representative in a legislative body; broadly, any citizen or resident of a district represented, considered with reference to the representative.
The electors in the district of a Representative in Congress, or in the legislature of a State, are termed his *constituents.* *Abbott.*
3. *Law.* A person who appoints another to act for him as attorney in fact; a principal.
4. *Math.* See DETERMINANT, 5; MATRIX.
5. *Physical Chem.* Any of the chemical substances in a system, whether element or compound. Cf. COMPONENT.
Syn. — See COMPONENT.

Constituent Assembly. = NATIONAL ASSEMBLY, 4 & 5 b.

constituent whole. See WHOLE.

con′sti·tute (kŏn′stĭ·tūt), *adj.* [L. *constitutus*, past part.] Constituted; established; formed. *Now Rare.*

con′sti·tute (kŏn′stĭ·tūt), *v. t.*; -TUT′ED (-tūt′ĕd; -ĭd; 119); -TUT′ING (-tūt′ĭng). [L. *constitutus*, past part. of *constituere* to constitute, fr. *con-* + *statuere* to place. See STATUTE; cf. CONSTITUENT.] **1.** To set or station in a given situation, state, or character; now, to appoint, depute, or ordain to an office or function; to make, as by fiat; as, he *constituted* himself their guide.
2. To set up; establish; specif.: **a** To enact or put in force, as a law. **b** To found, as a social or political institution. **c** To give due or lawful form to, as a proceeding or a document. **d** To fix or determine, as a trait or characteristic.

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con·spir′a·tress (kŏn·spĭr′ȧ·trĕs; 119), *n.*, *fem.* of CONSPIRATOR.
con·spis′sate (kŏn·spĭs′āt), *v. t.* [L. *conspissatus*, past part. of *conspissare.*] To make dense or thicken. *Obs.* — **con′spis·sa′tion** (kŏn′spĭ·sā′shŭn), *n.* *Obs.*
con·spur′cate (kŏn·spûr′kāt; kŏn′spẽr-), *v. t.* [L. *conspurcatus*, past part. of *conspurcare.*] To pollute; defile. — **con·spur′cate**, *adj.* — **con′spur·ca′tion** (kŏn′spẽr·kā′shŭn), *n.* *All Obs.*
con′sta·ble·ry (kŭn′stȧ·b'l·rĭ; kŏn′-), *n.* [OF. *conestablerie.*] The office of, or district under, a constable.
con′sta·ble·ship′, *n.* See -SHIP.
con′sta·bless, *n.*, *fem.* of CONSTABLE. *Rare.*
con·stab′u·la·to′ry, *adj.* & *n.* Constabulary. *Obs.* [FRA, *Table.*
Con·stan′ti·no′ple, Era of. See
con′stant·ness, *n.* See -NESS.
con′ster (kŏn′stẽr). Obs. or dial. var. of CONSTRUE. [TUTUM.
‖**con′sti·tu′ta**, *n.*, *pl.* of CONSTI-
‖**con′sti·tu′ta pe·cu′ni·a.** [L., (a sum of) money agreed upon.] = PACTUM DE CONSTITUTO.

3. To form; to make up, as being the constitutive element or elements; as, vivacity *constitutes* her greatest charm; fifty-two cards *constitute* a pack.
4. To form or make, as by a constructive act; as, human nature being *constituted* finite.

constituted authorities. The established officers of government, collectively, as of a nation, city, town, etc.

con′sti·tut′er (kŏn′stĭ·tūt′ẽr), *n.* One who constitutes.

con′sti·tu′tion (kŏn′stĭ·tū′shŭn; 242), *n.* [OF., fr. L. *constitutio.*] **1.** Act or process of constituting; esp., act of enacting, establishing, or appointing.
2. a *Obs. exc. Hist.* An authoritative ordinance or enactment. **b** An established law, institution, or custom.
3. The aggregate of the physical and vital powers of an individual; physique or physical nature; as, a robust *constitution;* also, the aggregate of an individual's mental powers or qualities; temperament or disposition.
He defended himself with . . . less passion than was expected from his *constitution.* *Clarendon.*
4. That form of being, or structure and connection of parts, which constitutes and characterizes a system or body; natural structure, texture, or conformation.
The physical *constitution* of the sun. *Sir J. Herschel.*
5. The mode of organization of a social group.
6. The fundamental organic law or principles of government of a nation, state, society, or other organized body of men, embodied in written documents, or implied in the institutions and customs of the country or society; also, a written instrument embodying such organic law, and laying down fundamental rules and principles for the conduct of affairs. The British constitution belongs to what are called ***customary***, or ***unwritten, constitutions***, and any part of it may be modified by an ordinary act of Parliament. The Constitution of the United States belongs to what are often called ***rigid constitutions***, and cannot be modified in its express terms, except through such processes as the Constitution itself ordains. Gradual and essentially unconscious changes take place in the effect given to both customary and written constitutions through the development of the law by the judiciary. The Constitution of the United States was framed at Philadelphia in 1787 by a convention, the ***Constitutional Convention*** (May 25 to Sept. 17), called because of the failure of the Articles of Confederation to provide an effective national government. It was adopted and signed on Sept. 17, 1787, by representatives of all the thirteen original States except Rhode Island; and by August, 1788, it had been ratified by eleven States, and went into effect between them. Amendments I to X (the ***Bill of Rights***) were ratified (by eleven States) between Nov. 20, 1789, and Dec. 15, 1791; later Amendments were proclaimed to be in force as follows: XI, 1798; XII, 1803; XIII, 1865; XIV, 1868; XV, 1870; XVI & XVII, 1913; XVIII, 1919 (in effect 1920); XIX, 1920; XX, 1933; XXI, 1933. Cf. COMPROMISES OF THE CONSTITUTION.
7. [*cap.*] See SHIP, *Table.*
8. *Chem.* The structure of a compound, as determined by the kind, number, and arrangement of atoms in its molecule.
9. *R.C.Ch.* A papal enactment concerning matters of faith and discipline; — disting. from *canon* and *statute.*
10. *Rom. Law.* An enactment of the emperor.

con′sti·tu′tion·al (kŏn′stĭ·tū′shŭn·ăl; -′l), *adj.* **1.** Belonging to, or inherent in, the constitution, or structure of body or mind; as, a *constitutional* infirmity.
2. For the benefit of one's constitution or health.
3. Pertaining to the composition of anything; essential. "This very *constitutional* part of the national force." *Scott.*
4. In accordance with, or authorized by, the constitution of a state or a society; as, *constitutional* reforms.
5. Regulated by, dependent on, or secured by, a constitution; as, *constitutional* government or rights.
6. Relating to a constitution, or established form of government; as, a *constitutional* crisis.
7. Loyal to, or supporting, the constitution.

con′sti·tu′tion·al (kŏn′stĭ·tū′shŭn·ăl; -′l), *n.* **1.** A walk or other exercise taken for one's health. *Colloq.*
2. [*cap.*] A Constitutionalist, as in France about 1790.
3. *F. Hist.* One of the constitutional clergy. *Cath. Dict.*

constitutional clergy. *F. Hist.* That portion of the clergy which gave adhesion to the civil constitution of the clergy provided in 1790 by the National Assembly.

Constitutional Convention. See CONSTITUTION, 6.

Constitutional Democrat. In Russian politics, a member of the **Constitutional Democratic party,** formed about 1905. It favored autonomy for Poland and a federal constitution for the Russian Empire.

constitutional formula. *Chem.* See FORMULA.

con′sti·tu′tion·al·ism (kŏn′stĭ·tū′shŭn·ăl·ĭz′m; -′l·ĭz′m), *n.* Adherence to, or government according to, constitutional principles; also, a constitutional system of government.

con′sti·tu′tion·al·ist (-ĭst), *n.* **1.** An adherent of some particular constitution, or an advocate or student of, or a writer on, constitutionalism or constitutions. Specif. [*cap.*]: **a** *U.S. Hist.* An advocate of the Federal Constitution about the time of its adoption (1787). **b** In France, an advocate or framer of the constitution of 1789–90. **c** In England, about 1870–80, sometimes, a Conservative. **d** In Spain, Mexico, etc., a liberal, or one in favor of constitutional government.
2. One who takes a constitutional. *Jocose.*

con′sti·tu′tion·al′i·ty (-ăl′ĭ·tĭ), *n.*; *pl.* -TIES (-tĭz). [Prob. after F. *constitutionnalité.*] Quality or state of being constitutional; esp., state of being consistent with the provisions of governmental constitution.

constitutional law. **a** The law that has to do with the subject matter and with the interpretation and construction of constitutions, or that which deals with the nature and organization of government, its sovereign powers and their distribution and mode of exercise, and the relation of the sovereign to the subjects or citizens. **b** Specif., of any particular state, its constitution, with, or as developed by, the judicial constructions and interpretations which it has received.

con′sti·tu′tion·al·ly, *adv.* **1. a** In accordance with one's constitution; naturally; as, he was *constitutionally* timid. **b** In structure, composition, or constitution. **c** As regards the general bodily constitution.
2. In accordance with the constitution, or fundamental law; legally; as, he was not *constitutionally* appointed.

constitutional monarchy. See MONARCHY.

constitutional referendum. See REFERENDUM.

Constitutional Right. *French Politics.* The Ralliés.

Constitutional Union party. *U.S. Hist.* The temporary party which convened in May, 1860, and nominated for the Presidency John Bell of Tennessee. It carried Virginia, Kentucky, and Tennessee.

constitutional water. *Min.* The water contained in a mineral after its temperature has been raised to 110° C. and its hygrometric water driven off.

con′sti·tu′tion·ar′y (kŏn′stĭ·tū′shŭn·ẽr′ĭ; -ẽr·ĭ), *adj.* Constitutional. *Rare.*

con′sti·tu′tion·er (kŏn′stĭ·tū′shŭn·ẽr), *n.* A framer or supporter of a constitution.

con′sti·tu′tion·ist (-ĭst), *n.* A constitutionalist. *Rare.*

Constitution of Basil *or* **of the three emperors.** = PROCHIRON.

Constitutions and Canons Ecclesiastical, The. See 1st CANON, 1 **b.**

Constitutions of Clarendon. *Eng. Hist.* Declarations adopted in 1164 at a council of the bishops and barons at Clarendon, abridging the right of benefit of clergy, and defining and limiting the rights of the clergy.

Constitution State. Connecticut; — a nickname.

con′sti·tu′tive (kŏn′stĭ·tū′tĭv; kŏn·stĭt′ū·tĭv), *adj.* [Cf. F. *constitutif.*] **1.** Having power to enact, establish, or create; instituting.
2. Tending or assisting to constitute; elemental; essential. "An ingredient and *constitutive* part." *Barrow.*
3. *Philos.* **a** Entering into the essential nature; entering into the nature as a formative element or necessary attribute. **b** *Kantianism.* Having the character of stating a condition of the possibility of experience and, hence, of natural phenomena; — applied to principles and ideas, and opposed to *regulative.*
4. *Physics & Chem.* Pertaining to, or dependent on, constitution; as, a *constitutive* property. Cf. COLLIGATIVE. — **con′sti·tu′tive·ly,** *adv.* — **con′sti·tu′tive·ness,** *n.*

con′sti·tu′tive, *n.* That which enters into the constitution of anything; one of the qualities or characters which make a thing what it is; an element; constituent.

constitutive equation. *Math.* **a** An equation viewed as of itself constituting, or calling into being, the concept, locus, or function that it defines. **b** The equation of a locus.

con′sti·tu′tor (kŏn′stĭ·tū′tẽr), *n.* [L., an arranger, fr. *constituere* to constitute.] One who or that which constitutes.

‖**con′sti·tu′tum** (kŏn′stĭ·tū′tŭm), *n.*; *pl.* -TA (-tȧ). [L.] *Rom. Law.* An agreement as to an existing obligation not entered into by stipulation; as in: **con′sti·tu′tum de′bi·ti** (dĕb′ĭ·tī), an agreement, usually by a surety, to pay an existing debt; **con′sti·tu′tum pos′ses·so′ri·um** (pŏs′ĕ·sō′rĭ·ŭm), an agreement to hold as bailee something given but not delivered to another.

con·strain′ (kŏn·strān′), *v.* [OF. *constraindre, constreindre* (F. *contraindre*), fr. L. *constringere,* fr. *con-* + *stringere* to draw tight. See STRAIN; cf. CONSTRICT, CONSTRINGE.] *Transitive:* **1.** To compel; force; necessitate; oblige; as, *constrained* to toil for daily bread.
The love of Christ *constraineth* us. 2 *Cor.* v. 14.
2. Hence, specif.: **a** To force or produce in an unnatural or strained manner; as, a *constrained* smile. **b** *Obs.* To take by force, as a town. **c** *Obs.* To violate; ravish.
3. To secure by bonds; to chain, bind, or confine; also, *Obs.,* to constrict or constringe.
When winter frosts *constrain* the fields with cold. *Dryden.*
4. To bring into narrow compass; clasp tightly; compress.
How the strait stays the slender waist *constrain.* *Gay.*
5. To hold back by force; to restrain; to repress.
My sire in caves *constrains* the winds. *Dryden.*
6. To oppress or distress; to reduce to straits. *Now Rare.*
7. *Mech.* **a** To prevent the occurrence of (motion), except in a particular manner. **b** To prevent the operation, esp. the motion, of (a material point or body), except in a particular and definite manner.
——, *Intransitive:* To force or oblige; compel.
Syn. — Drive, impel, urge, press; curb, check.

con·strained′ (-strānd′), *past & past part.* of CONSTRAIN. Specif.: *part. adj.* Marked by constraint; forced; cramped; as, a *constrained* manner. — **con·strain′ed·ly** (-strān′ĕd·lĭ; -′d·lĭ; 119), *adv.* — **con·strain′ed·ness,** *n.*

con·strain′er (-strān′ẽr), *n.* One who or that which constrains.

con·strain′ing, *adj.* Forcing or compelling; confining; restraining. — **con·strain′ing·ly,** *adv.*

con·strain′ment (kŏn·strān′mĕnt), *n.* Constraint. *Rare.*

con·straint′ (kŏn·strānt′), *n.* [OF. *constreinte* (F. *contrainte*).] **1.** Act of constraining, or state of being constrained; compulsion; coercion; also, confinement; restraint.
Not by *constraint,* but by my choice, I came. *Dryden.*
Long imprisonment and hard *constraint.* *Spenser.*
2. Affliction or a cause of affliction; distress. *Obs.*
3. Exercise of control over one's feelings or behavior, whether by simulation or repression; hence, embarrassment or unnaturalness of manner; as, to speak with *constraint.*
4. *Mech.* Any means or mechanism that constrains motion.
5. *Physical Chem. & Cryst.* The restoring force on an ion in a crystal per unit displacement. It is a measure of the forces acting between ions in a lattice.
Syn. — Coercion, stress; reserve, stiffness. See FORCE.

con·strict′ (kŏn·strĭkt′), *v. t.*; -STRICT′ED; -STRICT′ING. [L. *constrictus,* past part. of *constringere.* See CONSTRAIN.] To draw together; to render narrower or smaller; to bind; cramp; to contract or cause to shrink; figuratively, to grip, or hold fast, as an emotion.
Constricted with sympathetic distress. *Arnold Bennett.*
Syn. — Tighten, squeeze. See CONDENSE. **Ant.** — Distend. See DILATE.

con·strict′ed (-strĭk′tĕd; -tĭd; 119), *adj.* **1.** Bound; held tight; cramped.
2. *Bot.* Contracted or compressed at regular intervals; moniliform; as, a *constricted* pod or legume.

con·stric′tion (kŏn·strĭk′shŭn), *n.* [F. or L.; F. *constriction,* fr. L. *constrictio.*] Act of constricting, or state of being constricted; tightness or sensation of tightness; also, anything that constricts or a part that is constricted; specif., *Med.,* a stricture; as, a *constriction* of the throat.

con·stric′tive (-tĭv), *adj.* [F. or L.; F. *constrictif,* fr. LL. *constrictivus.*] Of, pertaining to, or marked by, constriction; tending to constrict; constringent.

con·stric′tor (-tẽr), *n.* [NL.] **1.** That which constricts.
2. *Anat.* A muscle which contracts a cavity or orifice, or compresses an organ; as in: ‖**con·stric′tor isth′mi fau′ci·um** (ĭst′mī fô′shĭ·ŭm), the palatoglossus muscle; **constrictors of the pharynx,** flat thin muscles which form most of the fleshy walls of the pharynx.
3. *Zool.* Any serpent of the family Boidae; also, any other snake that kills its prey by enclosing and crushing it with its coils; as, the boa *constrictor,* and the king snake.

con·stringe′ (kŏn·strĭnj′), *v. t.*; CON·STRINGED′ (-strĭnjd′); CON·STRING′ING (-strĭn′jĭng). [L. *constringere.* See CONSTRAIN.] To draw together; to contract; to force to contract itself; to constrict; to cause to shrink.
Strong liquors . . . *constringe* [and] harden the fibers. *Arbuthnot.*

con·strin′gent (-strĭn′jĕnt), *adj.* [L. *constringens,* pres. part.] Causing constriction. — **con·strin′gen·cy** (-jĕn·sĭ), *n.*

con·stru′a·ble (kŏn·stro͞o′ȧ·b'l), *adj.* That may be construed. — **con·stru′a·bil′i·ty** (-bĭl′ĭ·tĭ), *n.*

con·struct′ (kŏn·strŭkt′; kŏn′strŭkt; 66), *adj.* [L. *constructus,* past part.] Formed by, or relating to, construction, interpretation, or inference.

con·struct′ (kŏn·strŭkt′), *v. t.* [L. *constructus,* past part. of *construere* to bring together, to construct, fr. *con-* + *struere* to pile up, set in order. See STRUCTURE; cf. CONSTRUE.] **1.** To construe, as a document. *Obs. Scot.*
2. To put together the constituent parts of (something) in their proper place and order; to build; form; make; as, to *construct* an edifice.
3. To put together or set in order mentally; to arrange; as, to *construct* a theory of ethics.
4. *Gram.* To combine grammatically, as a verb or preposition, with words to which it syntactically belongs.
5. *Math.* To represent (one kind of mathematical magnitude) by another; specif., to draw a figure of (an algebraic value or relation) by points, lines, or curves.
Syn. — Erect, frame, fabricate, compose, originate.
Ant. — Raze, demolish. See DESTROY.

con′struct (kŏn′strŭkt), *n.* That which is built, formed, or constructed; esp., a product of the uniting of immaterial elements; specif.: **a** *Psychol.* An intellectual construction; an object of thought which arises by a synthesis or ordering of terms, elements, or factors; as, every sense perception is a *construct.* **b** *Gram.* The construct state (which see).

con·struct′er (kŏn·strŭk′tẽr), *n.* A constructor.

construct form. Construct state.

con·struc′tion (kŏn·strŭk′shŭn), *n.* [OF., fr. L. *constructio.*] **1.** Process or art of constructing; act of building; erection; act of devising and forming; fabrication; composition; also, a thing constructed; a structure. Cf. BUILDING, *n.*
2. Act or result of construing, interpreting, or explaining a declaration or fact; an attributed sense or meaning; interpretation; specif., as distinguished from *interpretation,* the discovery and application of the meaning and intention of a statement or fact to a particular state of affairs. In ordinary and legal usage the distinction between *construction* and *interpretation* is not well observed.
The sort of *construction* that would be put on this act. *Hallam.*
3. Form or manner of building or putting together the parts of anything; structure; arrangement.
An astrolabe of peculiar *construction.* *Whewell.*
4. The process of mentally uniting ideas or conceptions so as to form an organic or congruous object of thought; also, the object or conception so formed.
5. *Gram.* **a** *Obs.* Act of construing, esp. as in translating. **b** Arrangement and connection of words in a sentence; syntactical arrangement. **c** Syntactical relation of a word, phrase, or clause to another or others.
6. *Math.* The act or result of drawing, esp. with compasses and ruler, a figure to fulfill given conditions or such figures as represent geometrically certain algebraic magnitudes and their given relations.

con·struc′tion·al (-ăl; -′l), *adj.* Of or pert. to construction; specif.: **a** Structural. **b** Deduced by or dependent on interpretation. **c** *Geol.* Pert. to, resulting from, or designating, constructive processes, as deposition and volcanic eruption, distinguished from those of erosion. — **con·struc′tion·al·ly,** *adv.*

construction bond. A bond furnished by a contractor for the completion of his contract for construction work.

construction engineering. See ENGINEERING, *n.,* 1. — **construction engineer.**

con·struc′tion·ism (kŏn·strŭk′shŭn·ĭz′m), *n.* Belief in, reliance on, or employment of construction or constructive methods, processes, etc.; also, a doctrine or theory based on construction; specif.: **a** The placing of a certain construction upon some writing or instrument. **b** *Theater.* Constructivism. — **con·struc′tion·ist** (-ĭst), *n.*

construction mortgage. See MORTGAGE.

construction train. *Railroads.* A train for transporting men and materials for construction or repairs.

con·struc′tive (kŏn·strŭk′tĭv), *adj.* [ML. *constructivus.*] **1.** Constructing or given to construction.
The *constructive* fingers of Watts. *Emerson.*
2. Of, pertaining to, or resembling, construction; also, as opposed to *destructive,* helpful toward construction or further development; as, *constructive* criticism; a *constructive* suggestion.
3. Derived from, or depending on, construction or interpretation; not directly expressed, but inferred; — often applied in law to an act or condition assumed from other acts or conditions which are considered (either as an inference or from public policy) as amounting to or involving the act or condition assumed, as in *constructive* fraud, notice, total loss, trust, etc. See FRAUD, LOSS, TRUST, etc.
Syn. — CONSTRUCTIVE, IMPLICIT, VIRTUAL. That is CONSTRUCTIVE which depends upon construction or interpretation rather than upon direct expression; as, "The power of control and direction . . . is derived, by those who maintain it, from the right of removal; that is to say, it is a *constructive* power" (*D. Webster*); *constructive* treason, contempt. That is IMPLICIT which is implied or involved in something without being definitely stated or expressed; the term suggests a less strict or formal deduction than *constructive;* as, "A good present behavior is an *implicit* repentance for any miscarriage in what is past" (*Spectator*). That is VIRTUAL which exists in essence or effect, but not in actual fact; as, "But America is *virtually* represented. What! does the electric force of *virtual* representation more easily pass over the Atlantic than pervade . . . Chester and Durham, surrounded by abundance of representation that is actual and palpable?" (*Burke*); *virtual* denial, confession. Cf. LATENT.
— **con·struc′tive·ly,** *adv.*

constructive catabolism. See CATABOLISM.

constructive contempt. *Law.* See CONTEMPT, *n.,* 5.

constructive crime. *Law.* An act assumed to amount to, or involve, the commission of a crime when the real criminal act is not proved. Constructive crimes are no longer recognized by the courts.

constructive definition. *Math.* A definition which enables one to construct the thing defined.

constructive delivery. See DELIVERY, *n.,* 10.

constructive eviction. *Law.* Any act or acts which are treated as legally equivalent to, or produce the same result as, an actual eviction.

constructive fraud. *Law.* See FRAUD.

constructive imagination. See IMAGINATION.

constructive mileage. A mileage allowed for journeys supposed to be made, but not actually made.

con·struc′tive·ness (kŏn·strŭk′tĭv·nĕs; -nĭs; 119), *n.* Tendency or ability to form or construct; specif., *Phrenol.,* an affective propensity toward construction.

constructive total loss. *Insurance.* See 1st LOSS, 7.

con·struc′tiv·ism (-tĭv·ĭz′m), *n.* Constructionism; attachment to or employment of construction or constructive

constitute whole. See WHOLE.
con′sti·tu′tion·al·ize (kŏn′stĭ·tū′shŭn·ăl·īz), *v. t. & i.* See -IZE. — con′sti·tu′tion·al·i·za′tion (-ĭ·zā′shŭn; -ī·zā′shŭn), *n.*
‖Con′sti·tu′ti·o′nes Cle′men·ti′nae (kŏn′stĭ·tū′shĭ·ō′nēz klĕm′ĕn·tī′nē). [ML.] See CORPUS JURIS CANONICI.
con·strain′a·ble, *adj.* See -ABLE.
con·stric′tiv. Constrictive. *R.S.*
con·struct′i·ble, *adj.* See -ABLE.

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co·he'sive (kō·hē'sĭv), *adj.* **1.** Causing to cohere; producing cohesion; as, *cohesive* forces.
2. Cohering, or sticking together, as in a mass.
— **co·he'sive·ly**, *adv.* — **co·he'sive·ness**, *n.*

cohesive attraction. = COHESION, 3.

co·hib'it (kō·hĭb'ĭt), *v. t.* [L. *cohibere*, fr. *co-* + *habere* to hold.] To restrain or restrict. — **co'hi·bi'tion** (kō'hĭ·bĭsh'ŭn; kō'ĭ-), *n.* — **co·hib'i·tive** (kō·hĭb'ĭ·tĭv), *adj.* — **co·hib'i·tor** (-tẽr), *n.*

Cohn'heim's a're·as (kōn'hīmz). [After Julius F. *Cohnheim* (1839–84), Ger. pathologist.] *Anat.* The polygonal areas seen in transverse sections of a striated muscle fiber.

co'ho (kō'hō), *n.*, *or* **coho salmon.** The silver salmon.

co·ho'ba (kō·hō'bȧ), *n.* [Sp. *cohoba*, *cojoba*, *cojiba*, tobacco, in early Sp. accounts of the Antilles, fr. Taino *cohobo*, *cojobo*, *cogiobo*, cohoba, and perh. also tobacco or a mixture of the two. The two narcotics were confused by the early Spaniards. Cf. Sp. *caoba*, *caobo*, modern names of *Piptadenia peregrina* and similar trees.] A narcotic snuff, made from the seeds of a tropical American tree (*Piptadenia peregrina*).

co'ho·bate (kō'hō·bāt), *v. t.*; CO'HO·BAT'ED (-bāt'ĕd; -ĭd; 119); CO'HO·BAT'ING (-bāt'ĭng). [ML. *cohobare*, fr. Ar. *ka''aba* to repeat an action, double a number.] *Chem.* To repeat the distillation of, pouring the liquor back upon the matter remaining in the vessel, or upon fresh material. *Now Rare.* — **-ba'tion** (-bā'shŭn), *n.* — **-ba'tor** (-bā'tẽr), *n.*

co'hort (kō'hôrt), *n.* [F. *cohorte*, fr. L. *cohors*, prop., an enclosure. See COURT, *n.*] **1.** In the Roman army, one of the ten divisions of a legion, having at first about 300, later 500 to 600, soldiers; also, a similar subdivision in several organizations of cavalry and auxiliary troops. See LEGION.
2. Any band or body of warriors; a company; a band.
3. *Biol.* In earlier classifications, a group of somewhat indefinite limitation; — in botany, nearly equiv. to the modern *order*; in zoology, usually, equiv. to the *suborder*.

co'hor·ta'tion (kō'hôr·tā'shŭn), *n.* [L. *cohortatio*.] Exhortation.

co·hor'ta·tive (kō·hôr'tȧ·tĭv), *adj.* [L. *cohortari* to incite, exhort.] Of or pert. to cohortation; specif., *Heb. Gram.*, designating a lengthened form of the future (present or imperfect) tense, usually in the first person.

co'hosh (kō'hŏsh; kō·hŏsh'), *n.* [Of Algonquian origin; prob. akin to Massachuset *kôshki* it is rough.] Any of several American medicinal plants rather closely related; as, the black cohosh (*Cimicifuga racemosa*); the blue cohosh (*Caulophyllum thalictroides*); the white baneberry and the red baneberry.

‖**co'hue'** (kō'ü'), *n.* [F.] A rout; mob; a confused crowd.

co·hune' (kō·hōōn'), *n.*, *or* **cohune palm.** [Mosquito *óchuṅ*, *uchúṅ*.] An important Central and South American pinnate-leaved palm (*Attalea cohune*). The wood is used for construction, the sap for liquor, and the nuts (**cohune nuts**) for oil.

coif (koif), *n.* [ME. *coyfe*, fr. OF. *coife*, *coiffe*, fr. LL. *cofea*, *cuphia*, perh. fr. Gr. *skyphion* skull.] A close-fitting cap. Specif.: **a** A cap covering the sides of the head, like a small hood without a cape. **b** A ring of soft material worn under the heavy heaume. **c** A defensive skullcap, usually of iron or steel, formerly worn by soldiers, as under the hood of mail. **d** A white cap formerly worn by lawyers in England, esp. sergeants-at-law; hence, the order or rank of a sergeant-at-law. **e** Vaguely, a woman's headdress.

coif (koif), *v. t.*; COIFED (koift); COIF'ING. [F. *coiffer*.] **1.** To cover, dress, or invest with or as with a coif.
2. To dress or make up (the hair). *Rare.*

coif* St. *Catherine. To be an old maid; — from a 16th-century custom, in certain French churches, of annually having virgins between 25 and 30 years old renew the headdress of the statue of St. Catherine of Alexandria.

coifed (koift), *adj.* Wearing, or furnished with, a coif.

‖**coif'fée'** (kwȧ'fā'), *adj.* [F.] Having the hair dressed.

‖**coif'fette'** (kwȧ'fĕt'), *n.* [F., dim. of *coiffe*.] An iron skullcap worn by soldiers in the 14th century.

‖**coif'feur'** (kwȧ'fûr'), *n.* [F.] A hairdresser.

‖**coif'feuse'** (kwȧ'fûz'), *n.* [F.] A female hairdresser.

coif·fure' (kwä·fūr'; *F.* kwȧ'für'; 277), *n.* [F., fr. *coiffer*. See COIF.] A headdress, or manner of dressing the hair.

coif·fure' (kwä·fūr'), *v. t.*; -FURED' (-fūrd'); -FUR'ING (-fūr'ĭng). To dress in a coiffure.

coign, coigne (koin), *n.* **1.** A var. spelling of COIN, QUOIN, a corner, wedge, etc.; — chiefly used in **coign of vantage**, a position advantageous for action or observation. *Shak.*

> See you yon *coign* of the Capitol? yon corner stone? *Shak.*

2. *Geol.* A protaxis. *Rare.*

coi'gue (koi'gwā), *n.* [Sp. *coigüe*, *cóihue*, fr. Araucan *coyhue*.] A Chilean evergreen tree (*Nothofagus dombeyi*), the leafy boughs of which are used for thatching.

coil (koil), *v.*; COILED (koild); COIL'ING. [OF. *coillir* (F. *cueillir*) to collect, gather together, fr. L. *colligere*, fr. *col-* + *legere* to gather. See LEGEND; cf. CULL, *v. t.*, COLLECT.] *Transitive*: **1.** To wind cylindrically or spirally; as, to *coil* a rope; the snake *coiled* itself before springing.
2. To encircle and hold with or as with coils.
——, *Intransitive*: To wind or turn itself cylindrically or spirally; to form a coil; to wind; — often with *about* or *around*.
Syn. — Curl, twine, twist.

coil, *n.* **1.** A series of rings, or a spiral, of cable, rope, or the like, when coiled; also, a single ring of such a series.
2. The form assumed by something really or seemingly coiled; as, a *coil* of lace or lava.
3. A series of connected pipes in rows, layers, or windings, as in steam-heating or water-heating apparatus.
4. *Elec.* A spiral of wire, or an instrument composed of such a spiral and its accessories. See INDUCTION COIL.
☞ COMBINATIONS and PHRASES are:

coil bobbin	**coil cover**	**coil spring**
coil box	**coil-filling**, *adj.*	**coil switch**
coil case	**coil heater**	**coil-testing**, *adj.*
coil chain	**coil packing**	**coil-winding**, *adj.*

coil (koil), *n.* [Perh. fr. OF. *acueil* (F. *accueil*) an encounter. See 1st COIL.] A tumult; confusion; also, trouble; difficulty. *Archaic & Dial.* "This mortal *coil*." *Shak.*

coil, *n.* [Cf. OF. *coillir* to gather, 1st COIL.] A haycock. — *v. t.* To cock (hay). *Chiefly Dial., Brit.*

Coi'la (koi'lȧ), *n.* Also **Coil.** Latinized form of *Kyle*, a district of Ayrshire, Scotland, celebrated by Burns.

coil antenna. *Radio.* An antenna of one or more complete turns of wire or other conductor. It functions as an inductance rather than as a capacity. Cf. LOOP ANTENNA.

coil brake. See FRICTION BRAKE.

coiled basketry (koild). Basketry of close weave, usually circular in form, made by coiling the fiber.

coil'er (koil'ẽr), *n.* One that coils or winds; specif., *Cotton Spinning*, an apparatus for coiling the sliver by feeding it through a tube attached to an annular revolving plate, called a **coiler plate**, into oppositely revolving **coiler cans.**

coiler can. **a** *Woolen Mfg.* A can for receiving the sliver from the cards. **b** *Cotton Spinning.* See COILER.

coil gland. *Anat.* A sweat gland.

coil pottery. *Archaeol.* A form of pottery, common among American Indians, made by coiling together strips of clay.

coil'smith' (koil'smĭth'), *n.* A smith who makes spiral springs or fashions tubes into coils.

coil stamps. *Philately.* Postage stamps issued in coils with perforation horizontally (***endwise coils***) or vertically (***sidewise coils***).

co·im'pli·cant (kō·ĭm'plĭ·kănt), *adj.* *Logic.* Mutually implying; equipollent.

coin (koin), *n.* [F., formerly also *coing*, wedge, stamp, corner, fr. L. *cuneus* wedge; prob. akin to L. *culex* gnat. See CULEX; cf. COIGN, QUOIN, CUNEIFORM.] **1.** A corner, cornerstone, or wedge; a quoin.
2. *Obs.* **a** A die for coining money; also, a mint. **b** The stamped impress of money.
3. A piece of metal (or, rarely, of some other material) certified by a mark or marks upon it to be of a definite intrinsic or exchange value, and issued by governmental authority to be used as money; also, such pieces collectively. That side of a coin (or medal) which bears the more important design, as the head of the monarch, is the *obverse*, the other the *reverse*. The *inscription* includes all the letters and numerals on the coin. Within the outer circle commonly formed by the *legend* (that part of the inscription which follows the line of the rim) is the *field*, occupied by the main device. The part below a horizontal line dividing the field near the bottom is known as the *exergue*. The metallic disk on which the design is impressed is called the *flan*.
4. Money. *Slang.*
☞ COMBINATIONS and PHRASES are:

coin assorter	**coin envelope**	**coin pouch**
coin bag	**coin fancier**	**coin sack**
coin box	**coin guard**	**coin-separating**, *adj.*
coin case	**coin holder**	**coin slot**
coin changer	**coin-made**	**coin sorter**
coin check	**coinmaker**	**coin stamper**
coin collector	**coinmaking**	**coin tester**
coin-controlled	**coin-operated**	**coin tray**
coin counter	**coin-operating**, *adj.*	**coin-weighing**, *adj.*
coin-counting, *adj.*	**coin planchet**	**coin wrapper**

coin (koin), *v.*; COINED (koind); COIN'ING. [OF. *coignier*. See COIN, *n.*] *Transitive*: **1.** To make (coins) by stamping; to convert (metal) into coins; to mint; as, to *coin* silver dollars; hence, to convert into money; as, to *coin* one's brains.
2. To make or fabricate; to invent; as, to *coin* a word.
3. To make or turn out rapidly, as by minting.

> Tenants cannot *coin* rent just at quarter day. *Locke.*

4. **a** *Obs.* To stamp (an image) on a coin. **b** *Eng.* To stamp (metal blocks) to certify their weight and purity.
——, *Intransitive*: To make coins; to mint.

coin money. Fig., to make money rapidly. *Colloq.*

TABLE OF CURRENT COINS AND MONEYS OF ACCOUNT

NOTE. In this table the equivalent value of each coin is given, based chiefly on figures published by the United States government, which in turn were based, when possible, on the definition of each country of its monetary unit, as contained in its law. Some countries are on a gold basis, a few on silver only, and others have no fixed basis. The United States gold dollar is regarded as containing 25.8 grains, .900 fine, which is on the basis of a value in gold of $20.671834 per fine ounce. For Great Britain, all values are equated on the basis of the pound at $4.8665. The current exchange value is usually listed in the newspapers. Copper, bronze, and nickel coins are usually token coins, the values for which (as given) are nominal, not intrinsic. Only coins current within the last half century or so are included, obsolete coins being given in the Vocabulary. In the second column the metal of the coin defined is given; the abbreviations used are: *alum.*, aluminum; *br.*, bronze (usually 95% cop., 4% ni., and 1% zinc); *cop.*, copper; *g.*, gold; *ni.*, nickel; *s.*, silver; also: *ac.*, money of account; *pap.*, paper (generally, however, paper money is not included). The third column gives the equivalent of a coin in terms of a common or the standard unit of the country.

NAME	COUNTRY AND METAL	EQUIVALENT IN OTHER NATIVE COINS	EQUIVALENTS IN U. S. $	Gr. Brit. £	s.	d.
abbasi	Afghan.: *s.*	1/2 Kabuli rupee	.1107			5 11/24
afghani*	Afghan.: *s.*	100 puls	.3650		1	6
alfonso*	Spain: *g.*	25 pesetas	4.8238		19	9 9/10
altilik*	Turkey: *s.*	6 piasters	.2640		1	1 1/80
amania*	Afghan.: *g.*	20 afghanis	7.2998	1	10	0
amole*	Abyssinia: *salt*					
angolar*	Angola: *s.*	4/5 escudo	.8644		3	6 5/8
anna*	India: *ni.*	1/16 rupee	.0228			1 1/2
argentino	Argentina: *g.*	5 pesos	4.8238		19	9 9/10
ashrafi*	Abyssinia: *ac.*	1/2 talari	.1504			7 2/5
ashrafi	Persia: *g.*	10 gold krans	1.7208		7	0 7/8
ashrafi	Persia: *g.*	20 silver krans	1.5980		6	6 9/11
asper	Turkey: *ac.*	1/120 piaster				
at, att	Siam: *pewter*	1/64 baht	.0069			0 1/3
auksinas*	Lithuania: *ac.*	100 skatiku				
aurar	Iceland: pl. of	EYRIR				
avo	Macao, Timor: *br.*	1/100 pataca	.0057			0 7/25
azteca*	Mexico: *g.*	20 pesos	9.9692	2	0	11 16/25
baht*	Siam: *s.*	100 satang	.4424		1	10
balboa*	Panama: *s.*	100 cents‡	1.0000		4	1 8/25
ban	Rumania: *cop.*	1/100 leu	.0019			0 1/11
ban	Rumania: *ac.*	1/100 leu				
belga*	Belgium: *ac.*	5 francs	.1390			6 17/20
besa	Abyssinia: *cop.*	1/100 Maria Theresa dollar	.0045			0 2/9
besa	It. Somaliland: *cop.*	1/100 rupee	.0036			0 2/11
beshlik*	Turkey: *alum.*	2 1/2 piasters	.1099			5 5/12
bit*	Brit. Guiana: *s.*	4 pence	.0812			4
bit	Virgin I. (U.S.): *ac.*	1/500 daler	.0019			0 1/11
bolivar	Venezuela: *s.*	100 centimos	.1930			9 1/2
boliviano*	Bolivia: *ac.* & *s.*	100 centavos	.3650		1	6
British dollar	Hong Kong: *s.*	= HONG KONG DOLLAR				
candareen*	China: *ac.*	1/100 haikwan tael	.0072			0 7/20
cash*	China: *cop.*					
cent*	Brit. E. Af.: *br.*	1/100 E. Af. shilling	.0024			0 1/8
cent	Ceylon: *cop.*	1/100 rupee	.0037			0 2/11
cent	China, etc.: *cop.*	1/100 yuan	.0046			0 2/9
cent	Hong Kong: *br.*	1/100 Hong Kong dollar	.0047			0 3/13
cent	Mauritius: *br.*	1/100 rupee	.0037			0 2/11
cent	Netherlands: *br.*	1/100 gulden	.0040			0 1/5
cent	So. Africa: *br.*	1/100 florin				
cent	Str. Settlements: *cop.*	1/100 Str. dollar	.0057			0 7/25
cent	U.S.: *br.*	1/100 dollar	.0100			0 1/2
centas	Lithuania: *cop.-alum.*	1/100 lit.	.0010			0 1/20
centavo*	Argentina: *br.*	1/100 peso†	.0042			0 5/24
centavo	Bolivia: *br.*	1/100 boliviano	.0036			0 2/11
centavo	Colombia: *cop.-ni.*	1/100 peso	.0097			0 12/25
centavo	Cuba: *cop.-ni.*	1/100 peso	.0100			0 1/2
centavo	Ecuador: *br.*	1/100 sucre	.0020			0 1/10
centavo	El Salvador: *cop.-ni.*	1/100 colon	.0050			0 1/4
centavo	Guatemala: *cop.*	1/100 peso	.0002			0 1/100
centavo	Mexico, Honduras, etc.:	1/100 peso	.0050			0 1/4
centavo	Nicaragua: *br.*	1/100 cordoba	.0100			0 1/2
centavo	Peru: *br.*	1/100 sol	.0049			0 6/25
centavo	Peru:	1/100 sol	.0040			0 1/5
centavo	Phil. I.: *br.*	1/100 peso	.0050			0 1/4
centavo*	Portugal: *br.*	1/100 escudo	.0108			0 13/25
centesimo	Italy: *br.*	1/100 lira	.0019			0 1/11
centesimo	Italy: *ac.*	1/100 lira	.0005			0 1/40
centesimo	Uruguay: *cop.-ni.*	1/100 peso	.0103			0 1/2
centime*	Belgium: *cop.*	1/100 franc	.0003			0 1/66
centime	France: *cop.*	1/100 franc	.0019			0 1/11
centime	France: *ac.*	1/100 franc	.0004			0 1/50
centime	Switzerland: *br.*	1/100 franc	.0019			0 1/11
centimo	Costa Rica: *cop.-ni.*	1/100 colon	.0025			0 1/8
centimo	Spain: *br.*	1/100 peseta	.0019			0 1/11
centimo	Venezuela:	1/100 bolivar	.0019			0 1/11
chakram, chuckrum	Travancore: *s.*	1/32 rupee	.0114			0 14/25
chervonets*	Russia: *g.*	10 rubles	5.1455	1	1	1 19/22
colon*	Costa Rica: *s.*	1/4 U. S. dollar	.2500		1	0 1/2
colon	El Salvador: *s.*	100 centavos	.5001		2	0 2/3
commassee*	Arabia: *base s.*					
condor*	Chile: *g.*	10 pesos	1.2166		5	0
condor	Colombia: *g.*	10 pesos	9.7331	2	0	0
condor	Ecuador: *g.*	25 sucres	5.0001	1	0	6 4/7
conto*	Brazil: *ac.*: *see* MILREIS, Vocab.	1000 milreis				
conto	Portugal: *ac.*	1000 escudos				
cordoba*	Nicaragua: *s.*	100 centavos	1.0001		4	1 8/25
crore*	India: *ac.*	10 million Rs.				
crown*	Gr. Brit.: *s.*	1/4 pound ster.	1.2166		5	0
crown	See KORUNA, KRONA, KRONE, KROON					
cruzeiro*	Brazil: *ac.* & *g.*	10 milreis	1.1963		4	11
cuarenta*	Cuba: *s.*	40 centavos	.4000		1	7 12/25
daler*	Virgin I. (U.S.): *s.*	5 francs	.9648		3	11 4/7
dime*	U.S.: *s.*	1/10 dollar	.1000			4 23/25
dinar	Iraq: *g.* & *pap.*	1 pound ster.	4.8665	1	0	0
dinar	Persia: *ac.*	1/1000 kran				
dinar*	Yugoslavia: *cop.-ni.*	100 paras	.0175			0 6/7
dinero	Peru: *s.*	1/10 sol	.0487			2 2/5
dollar*	Abyssinia (Maria Theresa dollar): *s.*	20 piasters	.4512		1	10 6/25
dollar*	China (yuan): *s.*	100 cents	.4611		1	10 6/11
dollar*	Hong Kong (Hong Kong or British dollar): *s.*	100 cents	.4680		1	11 1/14
dollar*	Mexico (peso): *s.*	100 centavos	.4985		2	0 7/12
dollar*	Str. Settlements (Straits dollar): *s.*	100 cents	.5678		2	4
dollar*	U.S.: *g.* & *s.*	100 cents	1.0000		4	1 8/25
double	Guernsey: *br.*	1/8 penny	.0025			0 1/8
drachma*	Greece: *cop.-ni.*	100 lepta	.0130			0 16/25
ducat*	Austria: *g.*	16 1/4 schillings	2.2879		9	4 21/25
ducat	Czechoslovakia: *g.*	77 3/10 koruny	2.2879		9	4 21/25
ducat	Poland: *g.*	25 zloty	2.8045		11	6 3/10
eagle*	U.S.: *g.*	10 dollars	10.0000	2	1	1 1/8
East Africa shilling*	Brit. E. Af.: *s.*	100 cents	.2433		1	0
Egyptian pound*	Egypt: *g.*	100 piasters	4.9431	1	0	3 7/9
Eritrea dollar	Eritrea: *s.*	= TALLERO				
escudo*	Portugal & colonies: *g.* & *s.*	100 centavos	1.0805		4	5 2/7
estmark*	Estonia: *pap.*	= SENT				
eyrir	Iceland: *br.*	1/100 krona	.0027			0 3/22
fanam*	Travancore: *s.*	1/2 rupee	.0456			2 1/4
farthing*	Gr. Brit.: *br.*	1/4 penny	.0050			0 1/4
fennig	Poland, Lithuania: *ac.*	1/100 marka	.0002			0 1/100
fillér*	Hungary: *ac.*	1/100 korona	.0020			0 1/10
fillér	Hungary: *br.*	1/100 pengő	.0017			0 1/12
florin*	Austria, Montenegro: *s.*		.4820		1	11 19/25
florin	Gr. Brit.: *s.*	1/10 pound ster.	.4867		2	0
florin	Netherlands: *s.*	= GULDEN				
florin	So. Africa: *s.*	1/10 rand				
fourpence*	Gr. Brit.: *s.*	1/3 shilling	.0811			4
franc	Albania: *s.*	5 leks	.1930			9 1/2
franc	Belgium: *ni.*	100 centimes	.0278			1 3/8
franc*	France: *s.*	100 centimes	.1930			9 1/2
franc	France: *ac.* & *pap.*	100 centimes	.0392			1 14/15
franc	Switzerland: *s.*	100 centimes	.1930			9 1/2
franc	Virgin I. (U.S.): *s.*	1/5 daler	.1930			9 1/2
fuang	Siam: *s.*	1/8 baht	.0553			2 18/25
fuerte	Venezuela: *s.*	5 bolivars	.9648		3	11 4/7
gaj	Oman: *ac.*	1/20 mahmudi	.0020			0 1/10
girsh	Abyssinia: *s.*	1/16 talari	.0282			1 2/5
girsh	Egypt, etc.: *ni.*	1/100 Egyptian pound	.0494			2 3/7
gourde*	Haiti: *s.*	5 francs	.9650		3	11 4/7
gourde	Haiti: *s.*	1/5 U. S. dollar	.2000			9 17/20
grain*	Malta: *br.*	1/3 farthing	.0017			0 1/12
grivna*	Ukraine: *ac.*	1/2 ruble	.2573		1	0 17/25
groschen*	Austria: *br.*	1/100 schilling	.0014			0 1/14
grosz	Poland: *br.*	1/100 zloty	.0011			0 1/20
guinea*	Gr. Brit.: *ac.*	21 shillings	5.1099	1	1	0
gulden*	Danzig: *s.*	100 pfennigs	.1947			9 7/12
gulden	Netherlands: *s.*	100 cents	.4020		1	7 9/11
haikwan tael*	China: *ac.*	Customs unit	.7241		2	11 7/10
halerz*	Poland: *ac.*	1/100 korona	.0020			0 1/10
half crown*	Gr. Brit.: *s.*	1/8 pound ster.	.6083		2	6
half dollar	U.S., etc.: *s.*	50 cents	.5000		2	0 2/3
half eagle	U.S.: *g.*	5 dollars	5.0001	1	0	6 4/7
halfpenny*	Gr. Brit.: *br.*	2 farthings	.0101			0 1/2
heller*	Austria: *br.*	1/100 krone	.0020			0 1/10
heller	Czechoslovakia: *ac.*	1/100 koruna	.0003			0 1/66
heller	Ger. E. Af.: *cop.*	1/100 rupie	.0032			0 4/25
Hong Kong dollar	Hong Kong: *s.*	100 cents	.4680		1	11 1/14
Kabuli rupee*	Afghan.: *s.*	91 puls	.3322		1	4 3/8
kapelka*	Latvia: *ac.*	1/100 rublis				
kopeck*	Russia: *cop.*	1/100 ruble	.0051			0 1/4
korona	Hungary: *ac.*	100 fillér	.2026			10

* Further information is given in the Vocabulary. † The centavo circulates in Argentina and Paraguay as of parity with the paper currency, i. e., 44 per cent of face value. ‡ Nickel coins of 5 cents and 2½ cents are the smallest in circulation.

co'ho. † COFFEE.
co'hog. Var. of QUAHOG.
co'hol (kō'hōl), *n.* = KOHL, 1.
Co'-hong kō'hŏng), *n.* See HONG.
co'horn. Var. of COEHORN.
co·how', co·howe' (kō·hōō'). Vars. of CAHOW.
co'hu. † COFFEE. [OIL, *Table I.*]
co·hune' (-nut') oil *or* fat. See
co·hus'band, *n.* See CO-, 3 b.
co'i·den'ti·ty, *n.* See CO-, 3 a.
coife, coiffe. † COIF.
coift. Coifed. *Ref. Sp.*
coight. † QUOIT.
coigne. † COIN, COYNYE.
coign'y. Var. of COYNYE. [*Dial.*]
coil. Var. of COAL. *Obs. exc.*
coil, *v. t.* = CULL, choose. *Obs.*
coil, *v. t.* To beat; whip. *Obs. exc. Dial.*
coi'la·na·glyph'ic (koi'lȧ·nȧ·glĭf'ĭk). Var. of COELANAGLYPHIC.
coild Coiled. *Ref. Sp.*
coil'ing, *n.* *Archaeol.* See COIL POTTERY.
coillen. † CULLION.
coilyear. † COLLIER.
co'im·mense', *adj.* See CO-, 2.
co·im'pli·cate, *v. t.* See CO-, 1.
co'im·plore', *v. t. & i.* See CO-, 1.

colonial beech. The Queensland beech.
colonial buff. The color barium yellow.
Colonial Dames of America. **a** A national patriotic society of American women, descendants of early settlers, founded in Wilmington, Del., in 1892, for the purpose of collecting and preserving documents and relics of colonial times, of stimulating patriotism, etc. **b** A society founded in New York City in 1890 with similar purposes.
colonial dollar. = HOLEY DOLLAR.
colonial furniture. Furniture made in the American colonies before the end of the Revolution, largely influenced by contemporary European styles as the Queen Anne and Georgian, but having some indigenous features such as greater variety in woods, often being made of maple, ash, or cherry, and more extensive use of turnings.
colonial goose. Formerly, in Australia, a boned leg of mutton stuffed with savory herbs, to imitate roast goose.
co·lo'ni·al·ism (kō-lō'nĭ-ăl-ĭz'm), *n.* **1.** State or quality of, or the relationship involved in, being colonial.
2. A custom, idiom, idea, feature of government, or the like, characteristic of a colony.
3. The colonial system or policy in extension of territory.
colonial pine. An Australian evergreen tree (*Araucaria cunninghamii*), which yields a soft timber.
colonial teak. The flindosa. *Australia.*
colonial yellow. A color, reddish-yellow in hue, of medium saturation and high brilliance. Cf. COLOR.
co·lon'ic (kō-lŏn'ĭk), *adj.* *Anat.* Of or pert. to the colon.
col'o·nist (kŏl'ō-nĭst), *n.* **1.** A member or inhabitant of a colony; one engaged in the founding of a colony.
2. *Rom. Law.* = COLONUS.
col'o·ni·za'tion (kŏl'ō-nĭ-zā'shŭn; -nī-zā'shŭn), *n.* **1.** Act of colonizing, or state of being colonized.

The wide continent of America invited *colonization.* — *Bancroft.*

2. Settlement in or of a district by persons brought in to acquire a merely voting residence or to vote illegally.
col'o·ni·za'tion·ist (-ĭst), *n.* An advocate of colonization, esp., *U. S. Hist.*, of Africa by negroes from the U. S.
col'o·nize (kŏl'ō-nīz), *v.*; COL'O·NIZED (-nīzd); COL'O·NIZ'ING (-nīz'ĭng). *Transitive*: **1.** To plant or establish a colony or colonies in; to migrate to and settle in.
2. To gather, settle, or establish in a colony.
3. To settle (a district, etc.) with illegal or irregularly qualified voters.
—, *Intransitive*: To remove to, and settle in, a distant country; to make or establish a colony.
col'o·niz'er (-nīz'ẽr), *n.* One who colonizes.
col'on·nade' (kŏl'ŏ-nād'), *n.* [F., fr. It. *colonnata*, fr. *colonna* column. See COLONEL.] **1.** *Arch.* A series or range of columns placed at regular intervals, sometimes with adjuncts, as pavement, stylobate, roof, etc.; — usually limited to such as carry an architrave. When in front of a building, it is called a *portico*; when around a building or an open court or square, a *peristyle.*
2. A row of trees, posts, etc., suggestive of columns.
col'on·nad'ed (-nād'ĕd; -ĭd; 119), *adj.* Provided with a colonnade; as, the *colonnaded* streets of ancient Syria.
col'on·nette' (-nĕt'), *n.* [F., dim. of *colonne* column.] **1.** *Arch.* A small column, esp. one of many grouped as in a parapet, balustrade, or clustered column.
2. *Anat.* A slender column, as of bone.
col'o·no- (kŏl'ō-nō-), **colon-.** Comb. form for *colon*, as in:

colonalgia	colonopathy	colonoscope
colonitis	colonopexy	colonoscopy

‖**co·lo'nus** (kō-lō'nŭs), *n.*; *pl.* COLONI (-nī). [L.] In the later Roman Empire, a serf or tenant farmer bound to the soil, and paying a fixed rent. Although not slaves, the coloni passed with the lands. They were of two classes: those known as ***liberi coloni, tributarii,*** or ***inquilini,*** having few obligations beyond the payment of the rent; and the ***adscriptitii,*** or ***censiti,*** who had no property rights other than those in peculium.
col'o·ny (kŏl'ō-nĭ), *n.*; *pl.* -NIES (-nĭz). [ME. *colonie*, fr. OF. and L.; OF. *colonie*, fr. L. *colonia*, fr. *colonus* farmer, fr. *colere* to cultivate, dwell. See WHEEL; cf. CULTURE, COLOGNE.] **1.** A company of people transplanted from their mother country to a new province or country, and remaining subject to the jurisdiction of the parent state.

Notwithstanding anything in the Interpretation Act, 1889, the expression "*Colony*" shall not, in any Act of the Parliament of the United Kingdom passed after the commencement of this Act, include a Dominion or any Province or State forming part of a Dominion. — *Statute of Westminster.*

2. A group of people situated so as to resemble a colony; as: **a** A company of persons from the same country sojourning in a foreign city or land; as, the American *colony* in Paris. **b** An isolated group of people engaged in the same occupation; as, a *colony* of artists. **c** A group of persons set apart for correctional or charitable purposes; as, a penal or a labor *colony.* **d** An isolated community consisting of incurable or incompetent persons under supervision; as, an epileptic *colony.* **e** A group of inmates of a public institution living outside the parent institution and by their labor contributing to their own support.
3. The country or district colonized or occupied by an isolated group, as of artists; a settlement; also, any distant territory dependent on a ruling power.
4 *Bacteriol.* A circumscribed mass of microorganisms developed from a single cell or small cluster of cells, growing in or upon a solid or semisolid medium. Cf. FAMILY.
5 *Biol.* A collection of organisms of the same kind living in close association; as: **a** A community of ants, bees, or other social animals. **b** A number of animals or plants living together. **c** A coenobium or cell family.
6 *Class. Antiq.* **a** *Obs.* A rural settlement or estate, esp. one neighboring a city. **b** A Roman colonia, which was a subject settlement of Romans (orig. of coloni) in a newly acquired or hostile country, made orig. as a means of permanent occupation. **c** A Greek apoikia, or a settlement, nearly always independent or self-governing, of Greeks in a foreign country.
7 *Geol.* An assemblage of fossils apparently contained in older rocks than those in which they normally belong.
8 *Zool.* The aggregation of zooids of a compound animal.
Syn. — See DEPENDENCY.
col'o·ny (kŏl'ō-nĭ), *v. t.* To colonize. *Rare.*
col'o·pex'i·a (kŏl'ō-pĕk'sĭ-ȧ), **col'o·pex'y** (kŏl'ō-pĕk'sĭ), *n.* [NL. *colopexia*, fr. Gr. *kolon* colon + *pēxis* a fixing.] *Surg.* The operation of attaching by suture the sigmoid flexure to the abdominal wall.
col'o·pex·ot'o·my (-pĕks-ŏt'ō-mĭ), *n.* [See COLOPEXIA; -TOMY.] *Surg.* Fixation of the colon by stitching, and incision into it.
col'o·phane (kŏl'ō-fān), *n.* Also **col'o·phan** (-făn). [F. *colophane.*] A resin obtained from a tree (*Canarium mauritianum*) found on the island of Mauritius, allied to elemi; also, the tree itself.
col'o·phene (kŏl'ō-fēn), *n.* [See COLOPHONY.] *Chem.* An oily liquid, a high-boiling component of the mixture obtained by treating oil of turpentine with sulphuric acid.
col'o·phen'ic ac'id (kŏl'ō-fĕn'ĭk). *Chem.* Any of a series of monoacids of the formula $C_nH_{2n-10}O_4$, found in rosin.
col'o·phon (kŏl'ō-fŏn; -fŭn), *n.* [LL., fr. Gr. *kolophōn* finishing stroke, summit. See HILL.] **1.** Finishing touch. *Obs.*
2. An inscription placed at the end of a book or manuscript, often containing facts relative to its production, as the scribe's, illuminator's, or printer's name, the place and date of publication, etc.; as, from title page to *colophon.*

The *colophon*, or final description, fell into disuse. — *De Morgan.*

3. *Print.* An emblem, usually a device assumed by the publishing house, placed on the title page, the shelfback, etc.
co·loph'o·nate (kō-lŏf'ō-nāt), *n.* *Chem.* A salt or ester of a colophonic acid.
Col'o·pho'ni·an (kŏl'ō-fō'nĭ-ăn), *adj.* Of or pertaining to Colophon, ancient city of Ionia.
Colophonian gum or **resin.** Colophony.
col'o·phon'ic ac'id (kŏl'ō-fŏn'ĭk). *Chem.* Any of several acids, $C_{20}H_{30}O_2$, said to occur in colophony.
col'o·phon'ist (kŏl'ō-fŏn'ĭst), *n.* The writer of a colophon.
col'o·pho·nite (kŏl'ō-fō-nīt; kō-lŏf'ō-nīt), *n.* *Mineral.* A coarse kind of garnet of the variety andradite.
col'o·pho'ny (kŏl'ō-fō'nĭ; kō-lŏf'ō-nĭ), **col'o·pho'ni·um** (kŏl'ō-fō'nĭ-ŭm), *n.* [Gr. *hē kolophōnia* (sc. *rhētinē* resin, gum) resin, fr. *Kolophōnios* of or from Colophon in Ionia.] Rosin.
co'lo·pli·ca'tion (kō'lō-plĭ-kā'shŭn; kŏl'ō-), *n.* [See COLO-; PLICATE.] *Surg.* The operation of pleating or reefing the colon in cases of dilatation.
col'or, col'our (kŭl'ẽr), *n.* [ME., fr. OF. *color, colour* (F. *couleur*), fr. L. *color*; akin to L. *celare* to conceal. See HELL.] **1.** A quality of visible phenomena, distinct from form and from light and shade, such as the red of blood, the blue of the sky, the green of grass.
2. *Psychophysics.* A sensation evoked as a specific response to stimulation of the eye and its attached nervous mechanisms by radiant energy of certain wave lengths and intensities. Color may be regarded as a psychological category; it can be described and specified in terms derivable from introspective analysis, without any reference whatever to wave lengths, to energy, or to any physical category; but it is also possible to state the physical correlates of the psychologically determined attributes of color and to draw up certain psychophysical relations between them. All colors are divisible into two classes, the *chromatic* colors, as reds, greens, purples, browns, and pinks, and the *achromatic*, or *neutral*, colors, including black, white, and the intermediate series of grays. The latter are found to differ from each other only in their degree of resemblance to or difference from black (or white). It is possible to form a series, ranging from black to white, with a median gray at the center differing equally from black and white, and with each other gray differing from its immediate neighbors by equal sense differences. This series can be made into a scale by assigning an ordinal number to each gray, either ascending toward the lighter grays from black as zero or ascending with positive numbers and descending with negative numbers from median gray as zero. That attribute which thus measures the variation of the grays is called *brilliance;* dark grays have low, median gray has medium, and light grays have high brilliance. Chromatic colors differ from each other not only in brilliance, but also in hue and saturation. *Hue* is that attribute in respect to which colors may be described as red, yellow, green, or blue, or as intermediate between two of these. Hues form a natural cyclic series (***hue cycle, color cycle*** or ***color gamut***). Colors of the same hue and equal brilliance may differ from each other in *saturation*, that is, in vividness of hue or in degree of difference from gray. In terms of these three attributes, colors can be arranged in a symbolic tridimensional space (***color solid***) having the gray series as axis, with median gray at the center and black and white at the extremities (Fig. 1). Corresponding to each gray is a plane perpendicular to the axis, in which lie the points representing all colors of equal brilliance. In each plane, hue is represented cyclically in the order of the hue cycle, and saturation is represented radially, with the axial points (grays) as reference points of zero saturation. Thus any color can be specified by giving three ordinal numbers (***color constants*** or ***dimensions***) which are the co-ordinates of the corresponding point in the color solid. By the establishing of arbitrary division points on the scales of brilliance and saturation any color can be described as having very low, low, medium, high, or very high position on these scales. "Of very low brilliance" means closely resembling black; "of low brilliance," about half way between black and middle gray; "of medium brilliance," about as brilliant as middle gray; "of high brilliance," about half way between middle gray and white; "of very high brilliance," closely resembling white. Similarly, "of very low saturation" means almost gray; "of very high saturation" means very vivid. All hues may be described in terms of the four psychologically primary hues, red, yellow, green, and blue, which are themselves indescribable in terms of other hues. Thus *red yellow* denotes a hue equally resembling, and differing equally from, red and yellow. Between each consecutive pair of the psychologically primary hues many intermediates can be recognized. By the establishing of arbitrary points of division on the hue cycle, hues can be classified as yellowish red, reddish red yellow, and red-yellow, yellowish red yellow, reddish yellow, yellow, greenish-yellow, yellowish yellow-green, etc. All principal definitions of colors in this Dictionary are in introspective terms like the following: "*bay*, a color, red yellow in hue, of low saturation and low brilliance"; "*carmine*, a color, red in hue, of very high saturation and low brilliance."

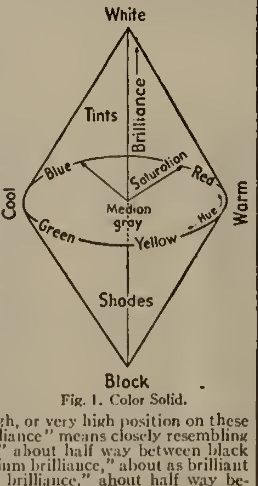


Fig. 1. Color Solid.

Physical correlates of color exist, though the variables are rather badly entangled in one another. Radiant energy is visible only between wave-length limits of about 385 to 760 mμ. Light from all ordinary sources, including the sun, arises from energies in varying intensities of all wave lengths between these limits, and is termed ***heterogeneous,*** — in distinction from ***homogeneous*** light arising from energy all of one wave length. When heterogeneous light arises from an intensity distribution among the wave lengths which is roughly (but not exactly) constant, we have ***white, gray,*** or ***neutral light.*** When such light, or rather energy, is passed through a glass or other prism, or a grating, the constituent energies of varying wave length are so spread out, as to result in a series of energies (the *physical spectrum*) which under normal conditions will evoke in a normal eye a series of colors (the ***color spectrum*** or ***chromatic spectrum***). This spectrum exhibits the hues in the same sequence as those of the introspectively constructed color cycle, except that there is a gap between the blues evoked by stimuli of short wave lengths and the reds evoked by those of long wave lengths. This gap can be completed by using as a stimulus a mixture of energies which separately evoke blue and red. The colors of the spectrum, either as viewed directly, or when seen reflected from an opaque screen or transmitted through a translucent one, vary not only in hue, but also in saturation and brilliance. Thus, for equal energy, the brilliance falls off on either side of the hue corresponding to 555 mμ, and the saturation is a minimum for the stimulus of 575 mμ. Complete physical purity of the spectral stimuli does not give equal saturations to the corresponding colors; the yellow (575 mμ) is far less saturated than the blue or red. In colorimetry, colors are "matched," or equated in respect to their attributes, by colors evoked by empirically found synthetic complex stimuli, not in general of the same spectral distribution as the stimulus ordinarily evoking the given color. In the method of ***homo-hetero-analysis,*** or so-called ***monochromatic analysis,*** the complex matching stimulus is composed of homogeneous spectral light of variable wave length, mixed with gray light in varying proportions. The wave length of the spectral light required for match is called the ***dominant wave length;*** the ratio of the intensity of the spectral light to that of the total (spectral plus gray) light is the ***purity.*** The third measure is the ***total light,*** integral with respect to wave length. It is found in this method that, for a given color, hue is determined (to a first approximation but not exactly) by dominant wave length, saturation by purity, and brilliance by total light. In the method of ***trichromatic analysis,*** the complex matching stimulus is composed of energy of three wave lengths, respectively near the two ends and the middle of the physical spectrum, the proportions of which (and the total) are varied until a match is obtained. Each of the stimuli so used is called an ***additive stimulus,*** for the total effect is the sum of the effects evoked by the component stimuli when employed separately. Each of a set of three homogeneous, or nearly homogeneous, red, green, and blue lights of specific wave length, with which all colors generally can be matched, except some themselves due to homogeneous or nearly homogeneous stimuli, is called a ***primary*** or ***fundamental stimulus,*** or an ***additive, fundamental,*** or ***physiological primary.*** Any impure color (with the minor exceptions mentioned) of spectral hue, can be matched by some mixture of these three primary stimuli. Certain purples and colors in the spectrum cannot be so matched. A mixture of such a color with one of the primaries can, however, be matched with a mixture of the other two. This may be regarded as equivalent to matching the sample by a mixture of these other two primaries with a negative quantity of the first. The use of negative quantities in computations is avoided by mathematical transformations from the real primary stimuli to three hypothetical ***elementary stimuli.*** The results may be expressed graphically in ***elementary excitation curves.*** They are usually given in the form of the ***Maxwell triangle*** (Fig. 2) which shows in what proportions the three elementary stimuli are necessary to match each of the other colors represented. On this triangle, the ***spectrum locus*** is a curve which exhibits these relations for the homogeneous stimuli of the spectrum. The perpendicular distances of any point from the three sides of the triangle are proportional to the quantities of the elementary stimuli required to match the color corresponding to this point. They are called the ***trilinear co-ordinates*** of the color. Points falling within the area enclosed by the spectrum locus and a straight line (RB) joining its extremities, correspond to colors obtainable by mixing spectrum stimuli with the *neutral* or *gray* stimulus, which is represented at the center (N.). The trilinear co-ordinates of a color C, are denoted by r, g, b. For the neutral stimulus, by a convention, these each have the value ⅓. By another convention, the units (***trichromatic units***) in which quantities of the stimuli are measured, in respect to their ability to evoke chroma, are such that equal quantities of the three elementary stimuli match the neutral stimulus. In this representation, the concept of brightness is abstracted, and the points in the triangle represent only the chroma, not the brilliance, of the colors in question. Since the sum of the co-ordinates is taken as unity, there is one superfluous co-ordinate, and it is convenient to plot a color diagram with only two co-ordinates, r and b, or r and g (Fig. 3). In these diagrams, pure colors, or colors of unit purity, fall on the spectrum locus; all other colors fall nearer the neutral or gray point, the center (N). Colors of given dominant wave lengths fall on straight lines (as at CN) radiating from the neutral point. Spectral colors fall within the area bounded by the spectrum locus and the lines (NB and NR) joining its extremities to the neutral point; nonspectral colors, or *purples*, fall within the area enclosed by these two lines and the line (RB) joining the spectrum extremities to each

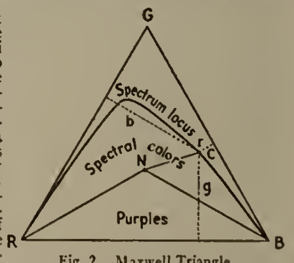


Fig. 2. Maxwell Triangle.

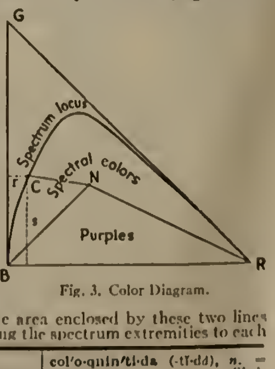
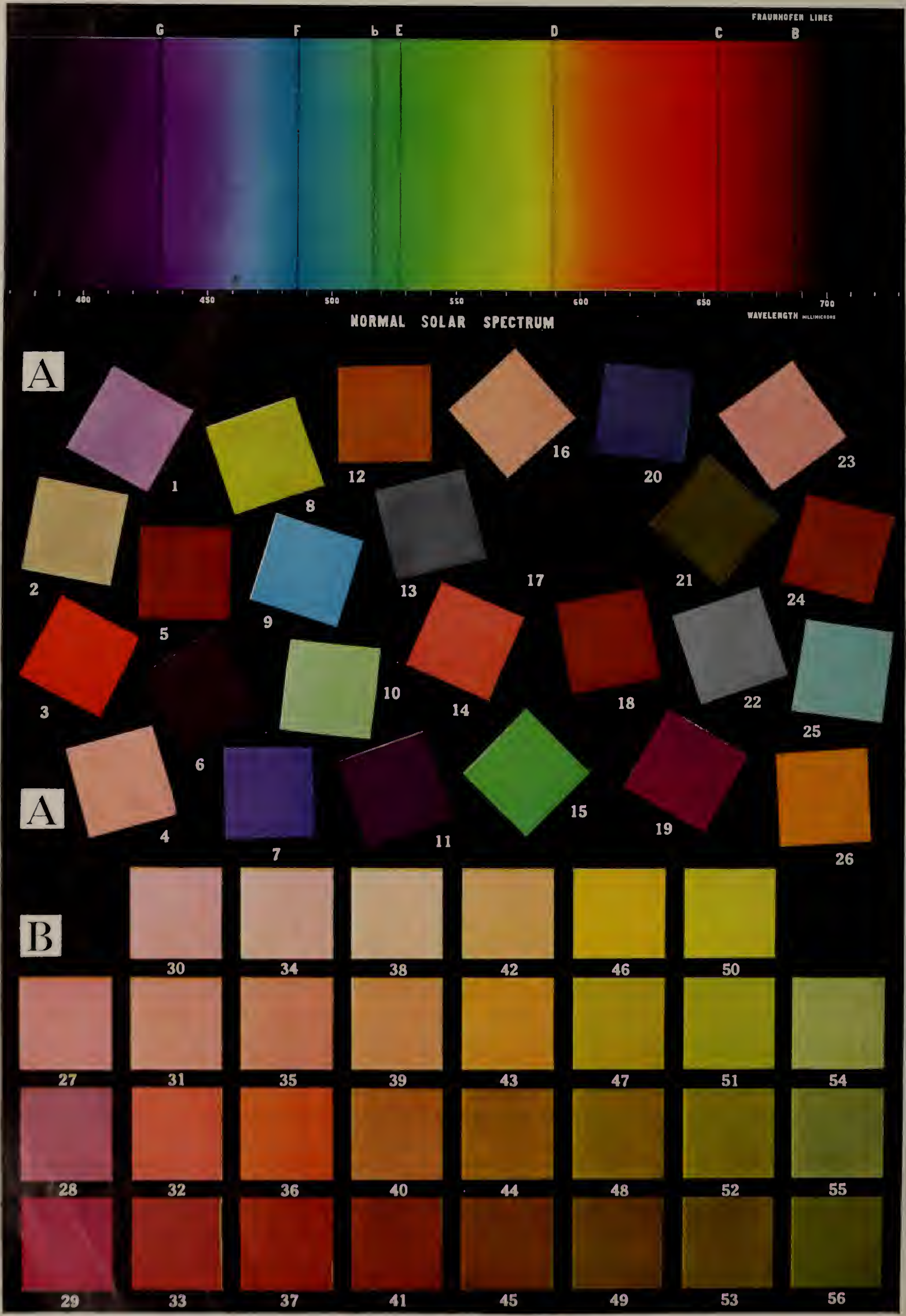


Fig. 3. Color Diagram.

co·lo'ni·al·ist, *n.* See -IST. co·lo'ni·al·ize, *v. t.* See -IZE.	co·lo'ni·al·ly, *adv.* of COLONIAL. co·lo'ni·al·ness, *n.* See -NESS.	col'o·niz'a·ble (kŏl'ō-nīz'ȧ-b'l), *adj.* See -ABLE. — col'o·niz'a·bil'-	i·ty (-bĭl'ĭ-tĭ), *n.* [COLOPHONY.] co·loph'a·ny, *n.* Erroneous for	coloppe. † COLLOP. col'o·quin'tid (kŏl'ō-kwĭn'tĭd),	col'o·quin'ti·da (-tĭ-dȧ), *n.* = COLOCYNTH. *Shak.*

SPECTRUM AND COLOR CHARTS



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EXPLANATION OF THE COLOR CHARTS AND COMMON NAMES OF THE COLORS

If the color squares shown at random in Chart A be examined for the purpose of arranging them in some systematic order, it will be seen that the colors exhibit certain outstanding differences from each other. The majority have a *hue* (see this term) more or less resembling some hue of the spectrum. This is true even of certain purples like 1, 6, 11, 17, and 19 which show resemblances to both ends of the spectrum. All of these colors are *chromatic* (see this term) and differ from colors 13 and 22 which have no hue and hence are *achromatic* or *neutral*.

If the chromatic colors in Chart A are arranged with their hues in the order of the spectrum and then examined, it will be seen that they exhibit still further differences from each other. Some of them, as 1, 2, 4, and 23, are *light;* others, as 5, 6, 7, and 17, are *dark*, while still others, as 18 and 24, are intermediate in *brilliance* (see this term). Certain light colors may be described as *very* light; certain dark colors, as 6 and 17, as *very* dark.

If we arrange a large number of chromatic colors with respect to the two attributes hue and brilliance, we obtain an arrangement like that shown in Chart B (colors 27 to 109). The colors in the first row (30, 34, 38, 42, 46, 50) are very light; those in the last row (93, 97, 101, 105, 109) are very dark. In addition to these *very* light and *very* dark colors, a light, a medium, and a dark color in each of 24 hues is shown. The order of the hues exhibited in the successive columns is that indicated in the article COLOR (which see). Every sixth column presents one of the psychologically primary hues; that is, the column of colors beginning with 27 is red, that beginning with 50 is yellow, with 69 green, and with 87 blue. Halfway between the primaries, in the columns beginning respectively with the numbers 38, 60, 78, and 98, are the hues red-yellow, yellow-green, green-blue, and blue-red. Following red is yellowish-red (30), following red-yellow is yellowish red-yellow (42), following yellow is greenish-yellow (54), and so on, as stated under COLOR. Preceding red-yellow is reddish red-yellow (34), preceding yellow is reddish-yellow (46) and so on. The six intervals between each pair of psychologically primary hues are so chosen as to be visually constant. Blank spaces are met in the very light and very dark rows, since in practice no colors of common names are met having corresponding hues and brilliances.

In this arrangement (Chart B) it is seen that certain colors stand out more vividly than others and among the colors shown in random order (Chart A) it is clearly seen that colors 3, 7, 9, 12, and 19 differ vividly from the grays (as 13 and 22), while others as 2 and 10 bear considerable resemblance to one or another of them. The difference is a difference of *saturation* (see this term) which is the third attribute of colors. If we now consider all colors of a given hue, as red-yellow, we can arrange them with respect to the two last-named attributes, brilliance and saturation. Thus in Chart C, the colors 110 to 126 are arranged in three rows according to brilliance, light (110–125), medium (111–126), and dark (112 to 124), with the appropriate neutral gray at the extreme left of each row, the color of highest saturation at the extreme right. Any colors having hues like those of each of the 24 shown in Chart B, which may be described as red, yellow, green, or blue, or as intermediates of these (see COLOR), can be arranged in a manner similar to those at C.

In Chart C the colors shown are not *exactly* of one hue since it was desired to show standard colors of common names. Similarly in Chart B not all of the light colors are *exactly* of equal brilliance, and so on, and for each group of three or four colors in a column there are, for similar reasons, slight variations of hue. The arrangements are, however, approximately correct.

A number of standardized colors of common names do not have brilliances even roughly like those of the columns shown, but fall between, or may be considered as near the "border lines"; coral (131), for example, is in brilliance about halfway between tea rose (31) and geranium (32). A number of such colors (127–152) are shown in Chart D.

CHART A

The names of the colors are as follows:

1. Same as 94.	2. Same as 113.	3. Same as 132.	4. Same as 31.
5. Same as 33.	6. Same as 97.	7. Same as 89.	8. Same as 47.
9. Same as 82.	10. Same as 60.	11. Same as 104.	12. Same as 126.
13. Same as 111.	14. Same as 32.	15. Same as 64.	16. Same as 35.
17. Same as 93.	18. Same as 37.	19. Same as 108.	20. Same as 86.
21. Same as 56.	22. Same as 110.	23. Same as 27.	24. Same as 37.
25. Same as 75.	26. Same as 125.		

CHART B

Very High Brilliance	*High Brilliance*	*Medium Brilliance*	*Low Brilliance*	*Very Low Brilliance*
	27. Pink (average)	28. Rose (average)	29. Ruby	93. Mulberry
30. Opera pink	**31.** Tea rose	32. Geranium	33. Cardinal	97. Fluorite violet
34. Peach	35. Salmon	36. Tile red	37. Henna	101. Plum
38. *Unnamed*	39. Apricot	40. Tan	41. Chestnut	105. *Unnamed*
42. Jonquil yellow	43. Golden yellow	44. Khaki	45. Raw umber	109. Raisin
46. Lemon chrome	47. Canary yellow	48. Citrine	49. Acorn	
50. Chrome primrose	51. Pyrethrum yellow	52. Serpentine green	53. Olive brown	
	54. Chrysolite green	55. Moss green	56. Olive green	
	57. Apple green	58. Chromium green	59. Yew green	
	60. Nile green	61. Emerald	62. Medium chrome green	
	63. Chrysoprase green	64. Shamrock green	65. Medium Brunswick green	
	66. Variscite green	67. Egyptian green	68. Marine green	
	69. *Unnamed*	70. Sulphate green	71. Bottle green	
	72. Turquoise green	73. Terre-verte	74. Duck green	
	75. Turquoise blue	76. Sea blue	77. Myrtle green	
	78. Blue turquoise	79. Email	80. Jouvence blue	
	81. Calamine blue	82. Italian blue	83. Peacock blue	
	84. *Unnamed*	85. Cobalt blue	86. Sapphire blue	
	87. Persian blue	88. Dresden blue	89. Ultramarine	
	90. Lavender blue	91. Wisteria blue	92. French blue	
	94. Lilac	95. Hyacinth	96. Violet (average)	
	98. Mauvette	99. Dahlia	100. Pansy violet	
	102. Mallow pink	103. Mallow purple	104. Magenta	
	106. Cameo pink	107. Mallow	108. Hollyhock	

CHART C

Oranges, tans, and browns

High Brilliance	*Medium Brilliance*	*Low Brilliance*
110. Light gray	111. Median gray	112. Dark gray
113. Flesh	114. Slate gray	115. *Unnamed*
116. *Unnamed*	117. Tanbark, or Algerian	118. Auburn
119. Apricot	120. Hazel	121. Cocoa
122. Zinc orange	123. Tan	124. Caledonian brown
125. Cadmium orange, or marigold yellow	126. Mandarin orange	

CHART D

Other colors of common names

127. Cerise	128. Claret, or Bordeaux	129. Carmine	130. English vermilion
131. Coral	132. Cherry	133. Maroon	134. Terra cotta
135. Persian orange	136. Deep chrome yellow	137. Lemon yellow	138. Ivory yellow
139. Grass green	140. Emerald green	141. Aquagreen	142. Baby blue
143. Cerulean blue	144. Sky blue	145. Royal blue	146. Navy blue
147. Lavender	148. Wisteria (violet)	149. Royal purple	150. Orchid
151. Amethyst	152. Heliotrope		

ALPHABETICAL LIST OF COLORS SHOWN IN THE COLOR CHARTS

Acorn 49
Algerian 117
Amethyst (violet) . . 151
Apple green 57
Apricot . . . 39, 119
Aquagreen 141
Auburn 118
Baby blue 142
Blue turquoise . . . 78
Bordeaux 128
Bottle green 71
Brunswick green, mid. 65
Cadmium orange 26, 125
Calamine blue . . . 81
Caledonian brown . . 124
Cameo pink 106
Canary (yellow) . 8, 47
Capucine 8, 47
Cardinal (red) . . 5, 33
Carmine 129
Cerise 127
Cerulean blue . . . 143
Cherry. 3, 132
Chestnut (brown) . . 41
Chrome green, med. . 62
Chrome primrose . . 50
Chrome yellow, deep . 136
Chromium green . . 58
Chrysolite green . . 54
Chrysoprase green . 63
Citrine 48
Claret (red) 128
Cobalt blue 85
Cocoa 121
Coral 131
Dahlia 99
Dresden blue . . . 88
Duck green 74
Egyptian green . . . 67
Email 79
Emerald 61
Emerald green . . . 140
English vermilion . . 130
Flesh 2, 113
French blue . . . 92
Fluorite violet . 6, 97
Geranium . . . 14, 32
Golden yellow . . 43
Goya 130
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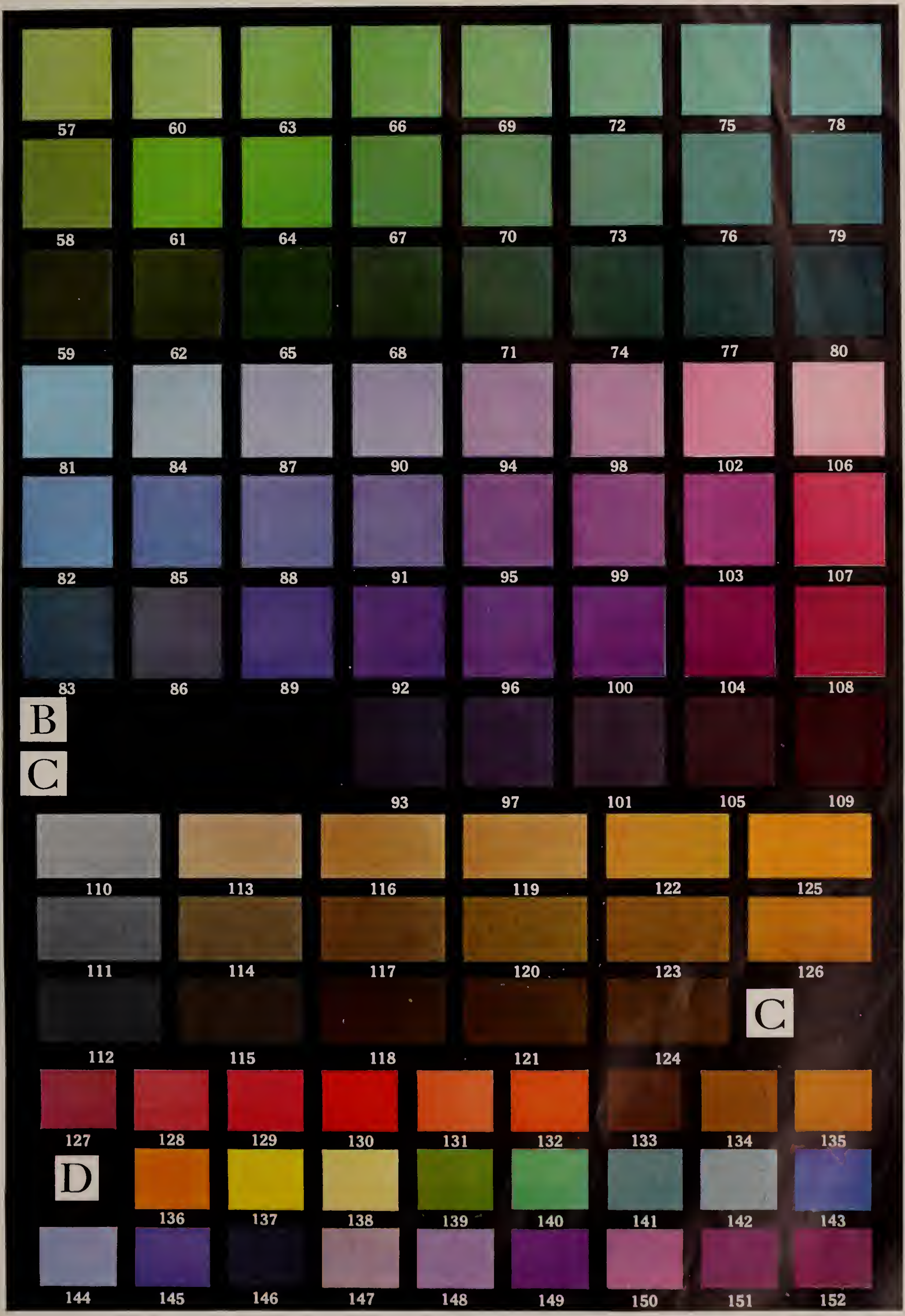

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in a comparative sense, of slow-burning structures or materials or those difficult to ignite. Its general meaning as applied to a residence, a modern office building, an ordinary safe, and a bank vault, represents varying degrees of immunity from fire.

fire′proof′ (fīr′prōōf′), *v. t.*; FIRE′PROOFED′ (-prōōft′); FIRE′PROOF′ING. To render fireproof.

fire′proof′ing, *n.* Act or process of rendering anything fireproof; also, the materials used in the process.

fir′er (fīr′ẽr), *n.* One that fires; one who sets fire to anything; an incendiary.

fire′-rais′ing, *n.* *Scots Law.* The unlawful and willful burning of property, including arson. — **fire′-rais′er**, *n.*

fire reel. A reel or spool for a fire hose; also, such a reel mounted on a cart for portability.

fire′room′ (fīr′rōōm′), *n.* A room containing a fireplace or a furnace; a stokehole; also, a fire box or chamber.

fire screen. **1.** A screen to intercept the heat of a fire. **2.** A fire guard. **3.** A woolen screen in the passage to a powder magazine.

fire set. A set of fire irons; tongs, shovel, and poker.

fire ship. A vessel carrying combustibles or explosives, sent among the enemy's ships or works to set them on fire.

fire′side′ (fīr′sīd′), *n.* A place near the fire or hearth; esp., the sides of the fireplace, where seats were formerly placed; hence, home; domestic life or retirement. — **fire′sid′er** (-sīd′ẽr), *n.* — **fire′side′ship**, *n.*

fire spots. Reddish spots on the iris of the eye.

fire′stone′ (fīr′stōn′), *n.* [AS. *fýrstān* flint; *fȳr* fire + *stān* stone.] **1.** Iron pyrites, formerly used for striking fire; also, a flint.
2. A stone which will endure high heat; — applied esp to a sandstone at the top of the upper greensand in the south of England, used for lining kilns and furnaces.
3. *Metal.* In a slag hearth, a plate of iron covering the front of the furnace except for a few inches of space between it and the bedplate.

fire stop. Any incombustible member or material used to fill or close open parts of a structure, to prevent the passage of fire. — **fire′-stop′**, *v. t.*

fire thorn. A European rosaceous tree (*Cotoneaster pyracantha*), somewhat resembling the medlar. It has escaped from cultivation in some parts of the United States.

fire tower. **1.** A beacon tower, used as a lighthouse. **2.** A tower from which a watch for fires is maintained.

fire trap. A place, esp. a building, so constructed as to make egress especially difficult or hazardous in case of fire.

fire tree. **a** A myrtaceous tree (*Metrosideros tomentosa*) of New Zealand having very hard wood resembling lignum-vitæ. **b** The Queensland tulip.

fire tube. *Steam Boilers.* A tube which forms a flue.

fire walk. The ceremony or ordeal of walking through fire or upon stones heated by fire. It is performed by some of the Polynesians as a religious rite and in past ages was a recognized ordeal in Europe.

fire wall. *Arch.* A fireproof wall used as a fire stop.

fire′ward′en (-wôr′d'n), **fire′ward′** (fīr′wôrd′), *n.* An officer who has authority to order precautions against fires or to direct in their extinguishment, as in towns or forests. *U. S.*

fire water. Ardent spirits; — a name attributed to the American Indians, commonly in jocular use.

fire′weed′ (fīr′wēd′), *n.* Any of several weeds troublesome in clearings or burned districts; as: **a** An American asteraceous weed (*Erechtites hieracifolia*). **b** The great willow-herb (*Chamænerion angustifolium*). **c** The Jimson weed. **d** The horseweed. **e** The hoary plantain.

fire′wood′ (-wŏŏd′), *n.* **1.** Wood for fuel.
2. The ironwood of the southeastern United States (*Cyrilla racemiflora*).

fire′work′ (-wûrk′), *n.* **1.** *Obs.* **a** A furnace. **b** Work done by means of, or in the midst of, fire.
2. (Usually in *pl.*) A device for producing a striking display of light, or a figure or figures in plain or colored fire, by the combustion of materials that burn in some peculiar manner, as gunpowder, sulphur, metallic filings, and various salts. The most common feature of fireworks is a paper or pasteboard tube filled with the combustible material. A number of these tubes or cases are often combined so as to make, when kindled, a great variety of figures in fire, often variously colored. The skyrocket is a common form of firework. The name is also given to various combustible preparations used in war. In the daylight fireworks of the Japanese, use is made of bursting bombs of colored smoke or vapor which assumes various forms.
3. *pl.* A pyrotechnic exhibition. *Obs. in the sing.*

The Duke of Richmond gave a *firework*. *Walpole.*

— **fire′work′less**, *a.* — **fire′work′y** (-wûr′kĭ), *a.*

fire′worm′ (-wûrm′), *n.* **a** The larva of a small tortricid moth which eats the leaves of the cranberry, so that the vines look as if burned. **b** A glowworm.

fire worship. Religious homage to fire or to a deity symbolized by fire.

fire worshiper *or* **worshipper.** One who worships fire; esp., a Gheber or Parsi.

fir′ing (fīr′ĭng), *p. pr. & vb. n.* of FIRE. Specif.: *vb. n.* **1. a** Act of discharging a firearm, a mine, etc. **b** Act or mode of introducing fuel into the furnace and working it. **c** Application of fire, or of a cautery. **d** *Ceram.* Exposure to intense heat in a kiln in order to harden or glaze.
2. Fuel; firewood or coal.

firing iron, an instrument used by veterinary surgeons in cauterizing. — **f. line**, *Mil.*, the main body of troops engaged in fire action within effective range of the enemy, or the position held by such body at any given moment. Only skirmishers, if any, are in advance of it. In its rear are, normally, its supports and the reserves, local and general. It now invariably moves in extended order. Artillery, esp. on the side of the attack, is not generally considered as forming part of the firing line, whatever its actual position. — **firing order**, the order in which the explosion or working strokes occur in a multiple-cylinder internal-combustion engine. — **f. party**, *Mil.*, a squad detailed to fire a volley over the grave of one buried with military honors, or to shoot one sentenced to be shot. — **f. pin**, in the breech mechanism of a firearm, the pin which strikes the head of the cartridge and explodes it.

firk (fûrk), *v. t.*; FIRKED (fûrkt); FIRK′ING. [Cf. ME. *ferken* to drive, proceed, make haste, AS. *fercian* to bring; perh. akin to *faran* to go, E. *fare*.] **1.** To bring; to conduct; to help on; to urge; drive. *Obs.*
2. To cheat; to get dishonestly; to contrive. *Obs.*
3. To beat; strike; chastise; conquer. *Archaic. Shak.*

firk (fûrk; fĭrk), *v. i.* **1.** To move quickly; to hasten; also, to be lively or frisky. *Obs.*
2. To move jerkily; to fidget. *Scot. & Dial. Eng.*

fir′kin (fûr′kĭn), *n.* [Prob. fr. D. *vierde* fourth (fr. *vier* four) + *-kin.* See FOUR.] **1.** A small wooden vessel or cask of indeterminate size, — used for butter, lard, etc.
2. A measure of capacity of various values, usually the fourth part of a barrel. The English firkin is now 9 imperial gallons (formerly a firkin of ale was 8 ale gallons and a firkin of beer 9 beer gallons). Hence, a weight, varying with the commodity, a firkin of butter being 56 pounds.

fir′lot (fûr′lŏt), *n.* [Scot., the fourth part of a boll of grain, Icel. *fjórði* fourth (cf. FOURTH, FOUR) + *hlutr, hlotr*, lot, share, part (cf. LOT).] **1.** An old dry measure of Scotland; the fourth part of a boll. See BOLL.
2. A vessel holding, or used to measure, a firlot.

firm (fûrm), *a.*; FIRM′ER (fûr′mẽr); FIRM′EST. [ME. *ferme*, F. *ferme*, fr. L. *firmus*; cf. Skr. *dharman* support, law, order, *dhṛ* to hold fast, carry. Cf. FARM, THRONE.] **1.** Fixed; hence, closely compressed; compact; substantial; solid; — applied to the matter of bodies; as, *firm* flesh; *firm* muscles; *firm* wood.
2. Not easily moved, shaken, excited, or disturbed; unchanging in purpose; fixed; steady; constant; stable; unshaken; not easily changed; established; loyal; as, *firm* nerves; a *firm* seat in the saddle; a *firm* believer; a *firm* decree; *firm* friends.

By one man's *firm* obedience fully tried. *Milton.*

3. Hence: **a** Secure in possession; — said of a person or thing. *Obs.* **b** Certain; well-founded. *Obs.*

There is no *firm* reason to be render'd. *Shak.*

4. Solid; — opposed to *fluid*; as, *firm* land.
5. Indicating firmness; as, a *firm* voice or countenance.
6. *Com.* Steady; not fluctuating markedly; without downward tendencies; — said of prices, a market, a period, etc.; hence, not declining in price; — said of commodities.

Syn. — Compact, dense, fixed, stable, steady, secure, immovable; impenetrable, rigid, unyielding; resolute, constant, determined. — FIRM, HARD, SOLID. FIRM (opposed to *loose, flabby*) suggests closeness or compactness of texture, or steadiness or consistency under pressure; HARD (opposed to *soft*; see HARD) implies impenetrability or relatively complete resistance to pressure; SOLID (opposed to *fluid, open, hollow*) implies fixity of form and density of mass; it suggests the negation of empty space; as, *firm* muscles, *firm* ground; *hard* as a rock, as steel; a *solid* globe, a *solid* wall; cf. *firm, hard, solid* flesh (or ground). Fig., *firm* implies stability, fixedness, or resolution; *hard*, obduracy or lack of feeling; *solid*, substantial or genuine qualities; as, a *firm* purpose, belief, to guide with a *firm* hand; a *hard* master, a *hard* bargain, a *hard* eye; *solid* attainments, *solid* comfort. See DENSE, LASTING, FIRMNESS.

firm land, terra firma. *Obs.*

firm, *v. t.*; FIRMED (fûrmd); FIRM′ING. [ME. *fermen* to make firm, F. *fermer*, fr. L. *firmare* to make firm, fr. *firmus* firm. See FIRM, *a.*] **1.** To make fast; to fix securely; to put in place firmly; to make solid or compact.

The earth should be *firmed* or packed over them. *L. H. Bailey.*

2. To fix; settle; confirm; establish. *Obs. or Archaic.*

And Jove has *firmed* it with an awful nod. *Dryden.*

3. To strengthen; support. *Obs. or Stock Exchange Cant.*
4. To fix or direct with firmness. *Obs.*
5. [Cf. FIRM, *n.*] To sign or validate (a document); to sign (one's name). *Obs.*

firm, *v. i.* **1.** To become firm, fixed, solid, or compact.
2. [Cf. FIRM, *n.*] To sign a document. *Obs.*

firm, *n.* [It. *firma* the (firm, sure, or confirming) signature or subscription, or Pg. *firma* signature, firm, or Sp. *firma* signature; all fr. LL. *firmare* to sign, confirm, in L., to make firm, fr. *firmus*, adj., firm. See FIRM, *a.*] **1.** Signature; sign manual. *Obs.*
2. The name, title, or style under which a company transacts business; the firm name; hence, a partnership of two or more persons; a commercial house; as, the *firm* of Hope & Co. Under English and American law a *firm* is not recognized as a legal person distinct from the members composing it; but in Scots law and French law the firm is a legal person distinct from its members, though the individual partners may be charged on a decree or diligence directed against the firm. Cf. COMPANY, 6.

Syn. — Company, house, partnership.

fir′ma-ment (fûr′mȧ-mĕnt), *n.* [L. *firmamentum*, fr. *firmare* to make firm, *firmus* firm: cf. F. *firmament*. See FIRM, *a.*] **1.** The vault or arch of the sky; the heavens.

☞ The word came into English as a translation of the Latin *firmamentum* of the Vulgate, meaning, lit., "a support; prop; strengthening," corresponding to the Greek *στερέωμα* of the Septuagint, meaning lit., "something solid; a foundation," both being used to render the Hebrew word which denotes an "expanse," and was in Scripture applied to the great arch or expanse over our heads in which the clouds and stars appear.

The earth was regarded (by the ancient Hebrews) as a flat surface, bounded upon all sides by the watery deep. Above, the heavens formed a hollow vault . . . This vault was thought to be solid, and was spoken of as a *firmament*. *Encyc. Bib.*

2. *Old Astron.* The orb of the fixed stars; the eighth and outermost celestial sphere. Sometimes, any of the crystalline spheres; as, the first *firmament*, or primum mobile.
3. Fixed foundation; established basis. *Obs.*
4. The act or process of making firm or strengthening. *Obs.*
5. The jeweled heads of pins for a headdress. *Obs.*

fir′ma-men′tal (fûr′mȧ-mĕn′tăl), *a.* **1.** Pertaining to the firmament; celestial; being of the upper regions. *Dryden.*
2. Of or pertaining to support or strengthening. *Rare.*

fir′man (fûr′măn; fẽr-män′), *n.*; *pl.* -MANS (-mănz; -mänz′). [Per. *fermān*.] In Turkey and some other Oriental countries, a decree or mandate issued by the sovereign; a royal order, license, or grant, — generally given for special objects, as to a traveler to insure him protection and assistance.

firm′er (fûr′mẽr), *a.* [F. *fermoir*; cf. OF. *formoir*.] *Mech.* Designating a chisel, gouge, or the like, short in length and adapted for heavier work than the longer paring tools, being usually driven by a mallet or framing hammer. — *n.* A firmer chisel. See CHISEL, *Illust.*

Fir′mi-ster′ni-a (fûr′mĭ-stûr′nĭ-ȧ), *n. pl.* [NL.; L. *firmus* strong + *sternum*.] *Zoöl.* A suborder of Anura in which in the adult state the epicoracoids of the two sides meet in the median ventral line. Cf. ARCIFERA. — **fir′mi-ster′nal** (-stûr′năl), **fir′mi-ster′ni-al** (-nĭ-ăl), **fir′mi-ster′nous** (-nŭs), *a.*

firm′ness, *n.* State or quality of being firm.

Syn. — FIRMNESS, CONSTANCY. FIRMNESS is esp. a quality of the will, and connotes resolution; CONSTANCY (see CONSTANCY) belongs rather to the affections and principles, and implies steadfastness and fidelity, often fortitude or endurance; as, "Ethel . . . has such *firmness* and resolution of character, that if she has once determined to conquer any inclination of that sort, I am sure she will master it" (*Thackeray*); "She said to him, with timid *firmness*, 'Have I leave to speak?'" (*Tennyson*); "the bewildering *constancy* of martyrs" (*W. Pater*); "Such as have passed through years of calamity bear up, with a noble and immovable *constancy*, against the heaviest [strokes]" (*Bolingbroke*). See FIRM.

fir′ry (fûr′ĭ), *a.* Made of fir; abounding in firs.

first (fûrst), *a.* [ME. *first, furst*, AS. *fyrst*; akin to Icel. *fyrstr*, Sw. & Dan. *förste*, OHG. *furist*, G. *fürst* prince; a superlative form of E. *for, fore*. See FOR, FORE; cf. FORMER, FOREMOST.] Preceding all others; first in time or a series, position, or rank; — used as an ordinal of *one*; as: **a** Earliest in time or succession; — said of either the past or future; as, he was the *first* to come; the *first* train leaves at noon; it will be my *first* voyage; the *first* year of independence. **b** Foremost in position; in front of, or in advance of, all others; as, the *first* rank of the company; his horse ran *first* in the race. **c** Foremost in rank, importance, or worth; chief; supreme; as, of the *first* importance.

To the memory of the man *first* in war, *first* in peace, and *first* in the hearts of his countrymen. *Henry Lee, Eulogy on Washington.*

d In titles of officers and officials, having precedence over colleagues of the same general grade; as, *first* vice president; *first* secretary of embassy; *first* sergeant; *first* violins.

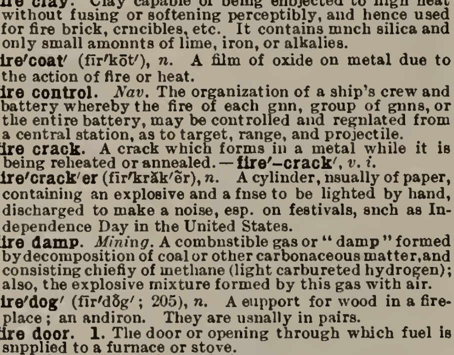
Syn. — Primary, primordial, primitive, primeval, pristine; highest, chief, principal, foremost.

at first blush, *or* **at the first blush**, at the first appearance, view, or consideration. "*At the first blush*, we thought they had been ships come from France." *Hakluyt.* This phrase is used now more of ideas, opinions, etc., than of material things. — **at f. hand**, from the original source; without intervention of an agent; as, he got it *at first hand*. — **f. act.** *Metaph.* = ACTUS PRIMUS. — **f. aid**, more or less skilled emergency treatment given to sufferers from accident, battle, etc., before regular medical or surgical care can be given to the case. — **f. base**, *Baseball*, the base that must be touched first by a base runner. Also, the player whose position includes it; — called also *first baseman*. — **f. baseman.** See BASEBALL. — **f. board.** *Exchanges.* **a** The first of a number of calls of bonds, stock, or produce. **b** *New York Stock Exchange.* The printed list of the sales from 10 A. M. to 12 M. — **f. brass.** *Numis.* See SESTERCE. — **f. cause.** *Metaph.* **a** Prime mover; primum mobile. **b** The great first cause, God, the Creator of all. **c** The self-active being to which, it is sometimes held, every chain of causes must go back, on the ground that to deny this is to deny all causality, because it is to make every link in the chain an effect that derives its causality from beyond; and if there be no first active efficient cause, all the effects, in infinite series, are without a cause, and hence they are no effects. See CAUSE, *n.* — **f. chop**, first-class; — a term brought into China by Anglo-Indians. — **f. class**, a place in the highest, or first, class in a college or university examination; also, one who takes such a place. — **f. coat.** **a** *Plastering.* The solid foundation of coarse stuff. It is thick, and crossed with lines, so as to give a bond for the next coat. **b** *Painting.* The first layer of paint. — **F. Consul**, *F. Hist.*, Napoleon Bonaparte. See CONSUL, 2 b. — **f. cost**, the cost at which a thing is acquired or produced, without including any subsequent expenses, as for storage, handling, loss of interest, etc. — **f. cousin.** See COUSIN, 2. — **F. Covenant, the**, *Eccl. Hist.*, the covenant made in 1557 by some of the most powerful Scotch barons and by many lesser nobles to support the Reformation. It was the first public step towards the organization of the Presbyterian Church in Scotland. — **F. day**, Sunday; — so called chiefly by the Society of Friends. — **f. derived assemblage**, *Math.*, the assemblage of all the limit points of an assemblage. — **f., second, *etc.*, digestion**, first, second, etc., concoction. See CONCOCTION, 1. Also fig. *Obs.* — **F. Empire**, the French empire (1804-15) under Napoleon I. — **f. floor.** **a** The ground floor. *U. S.* **b** The floor next above the ground floor. *Brit.* — **f. form.** **a** The lowest form in a school arranged on the English plan. **b** *Print.* The form printed first, generally containing the first page of the sheet. — **f. fruits**, *or, less commonly*, **f. fruit.** **a** The fruits of the season earli-

fire quarters. *Naut.* The stations at which officers and men are posted on an alarm of fire.
fire raft. A raft laden with combustibles, for setting fire to an enemy's ships or waterfront.
fire roll. *Naut.* A peculiar beat of the drum to summon men to their quarters in case of fire.
fire setting. *Mining.* The process of softening or cracking the working face of a lode by the action of fire.
fire shovel. A shovel for feeding fuel to a fire or for handling live coals.
fire slash. A slash in a forest or a wood made by fire.
fire′-slaught′ (*Scot.* -släkt′), *n.* [AS. *sleaht* a stroke, blow.] Lightning. *Obs. or R. Scot.*
Fi-res′mo (fĭ-rĕs′mō), *n.* *Logic.* Festino with transposed premises. See MODE. *Rare.* [*Brit.*]
fire station. = FIRE HOUSE, 2.
fire stick. **a** A stick used by primitive races to obtain fire by friction. **b** A firebrand.
fire stink. The stench from decomposing iron pyrites, due to sulphureted hydrogen.
fire surface. The heating surface of a steam boiler.
fire swab. A wet swab for cooling and clearing a gun in action, etc.
fire′tail′, *n.* **a** European redstart. *Dial. Eng.* **b** Tasmanian finch (*Zonæginthus bellus*); — called also **fire′-tailed′ finch.** **c** Humming bird of the genus *Sappho.*
fire teaser. The fireman of a steam engine. *Slang, Eng.*
fire test. See FLASHING POINT.
fire tile. A tile able to resist extreme heat.
fire tongs. [AS. *fȳrtang.*] Tongs for handling hot objects.
fire′top′, *n.* = FIREWEED b.
fire′-tube boil′er. See BOILER.
fire worker. **a** *Mil.* An artillery officer, assistant to the firemaster. *Obs.* **b** One who makes or deals with fireworks or explosives. *Obs. or R.*
firhman. ✝ FIRMAN.
Firingle. ✝ FERINGI. [trick.]
firk (fûrk), *n.* *Obs.* **1.** A freak; **2.** A smart stroke; flick; lash.
firk′er, *n.* One who firks.
fir′kin, *v. t.* To pack in firkins.
firm, *n.* The firm land, or mainland. *Obs*
firm, *n.* Anglicized form of LL. *firma*, rent. See FARM, rent.
firm (fûrm), *n.* [F. *fermes.* See FIRM, *a.*] *Arch.* Any of the principal rafters of a roof. *Dial. Eng.*
firma. ✝ FIRMAN.
‖ **fir′ma** (fûr′mȧ), *n.* [LL. See FARM, FIRM.] *Law.* **a** Farm; a lease or letting. **b** A firm.
‖ **fir′ma bur′gi** (bûr′jī). [LL.] *Law.* Lit., the farm of the borough; that is, the grant by the king to the burgesses of the revenues collected by the sheriff, for which the burgesses became responsible for certain payments to the king.
firm′ance, *n.* [OF. *fermance* a strengthening.] Confinement; assurance; stability. *Obs. Scot.*
‖ **fir-ma′ri-us** (fẽr-mā′rĭ-ŭs), *n.*; *pl.* -RII (-ī). [LL.] A farmer of revenues, taxes, etc.
fir-ma′tion (fẽr-mā′shŭn), *n.* [L. *firmare* to strengthen, prove.] Confirmation *Obs.*
fir-maun′. Var. of FIRMAN.
firme. ✝ FORME.
fir′me′ (fẽr′mā′), *a.* *Her.* Designating a cross pattée reaching to the sides of the shield.
firmest. ✝ FOREMOST.
firm′i-tude, *n.* [L. *firmitudo.*] Firmness; strength. *Obs.*
firm′i-ty, *n.* [L. *firmitas*: cf. F. *fermeté.*] **1.** Firmness *Obs.* **2.** Affirmance; assurance. *Obs.*
firm′less, *a.* Infirm; unstable. *Obs.*
firm′ly, *adv.* of FIRM.
fir moss. A kind of European club moss (*Lycopodium selago*).
firn (fĭrn), *n* [G., fr. *firn*, a., of last year.] *Phys. Geog.* = NEVE.
firnage. ✝ FIRNAGE.
fir oil. See OIL, *Table I.*
Fir′o-la (fĭr′ō-lȧ), *n.*, **Fi-rol′i-dæ** (fĭ-rŏl′ĭ-dē), *n. pl.* [NL.] Syns. of PTEROTRACHEA, PTEROTRACHEIDÆ.
Fir′o-loi′da (fĭr′ō-loi′dȧ), *n.* [NL.] *Zoöl.* A genus of heteropod mollusks closely allied to *Pterotrachea*, but having a filiform caudal appendage.
fir parrot. The common crossbill.
fir pine. = BALSAM FIR a.
fir rape. **a** Pinesap. **b** Beechdrops.
fir′ren, *a.* Made of fir. *Obs.*
firrette. ✝ FERRET.
fir′ring, *n.* = FURRING.
firse. ✝ FURZE.
fir′-seed′ oil. See OIL, *Table I.*
first. ✝ FRIST.
first, *n.* [AS. *first, fyrst.*] A ceiling; ridgepole. *Obs.*

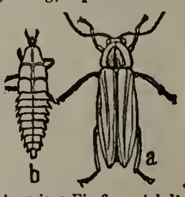
āle, senāte, câre, ăm, ȧccount, ärm, ȧsk, sofȧ; ēve, ēvent, ĕnd, recĕnt, makẽr; īce, ĭll; ōld, ōbey, ôrb, ŏdd, sŏft, cŏnnect; ūse, ūnite, ûrn, ŭp, circŭs, menü;
‖ Foreign Word. ✝ Obsolete Variant of. + combined with. = equals.

pinaceous trees; — chiefly in combination, as Douglas *fir*, Scotch *fir*, etc.
2. **a** The wood of any species of *Abies*. **b** The wood of any of several related conifers, esp. spruce, and in English markets of various pines. Genuine fir may be distinguished from pine, spruce, or larch by the absence of resin ducts. In hardness and appearance it closely resembles spruce.
☞ *Fir* is used in the Bible, according to Sir J. D. Hooker, for a number of conifers, as the cedar and cypress.
Fir'bolg' (fēr'bŏlk'), *n.* [OIr. *fir Bolg* men of Bolg.] One of a tribe which, in Irish tradition, settled in Ireland at a very early date, and was nearly destroyed in a battle with the Tuatha De Danann. By ethnologists they are generally identified with the dark population, usually of short stature, believed to be of Iberian affinities. Cf. SILURES.
fir club moss. A club moss (*Lycopodium selago*) of northern Europe and America, having the habit of a miniature fir.
fire (fīr), *n.* [ME. *fir, fyr, fur*, AS. *fȳr*; akin to D. *vuur*, OS. & OHG. *fiur*, G. *feuer*, Icel. *fȳri, fūrr*, Gr. πῦρ; cf. Skr. *pāvaka* fire. Cf. EMPYREAN, PYRE.] **1.** The principle of combustion as manifested in light, esp. flame, and in heating, destroying, and altering effects; combustion; ignition. It was formerly regarded as a tenuous material substance, and anciently classed with air, earth, and water, as one of the four elements. Cf. FLAME, ELEMENT, 2.
2. Fuel in a state of combustion, as on a hearth, or in a stove or a furnace; as, a cheerful *fire*.
3. A destructive burning, as of a house, town, or forest.
4. Lightning; a thunderbolt; an electric flash; as, *fire* from heaven. *Archaic.*
5. The means of lighting a fire; fuel (*Obs.*). Also, an inflammable composition or a device for producing a fiery display; as, red *fire*, or Greek *fire*.
6. Torture, ordeal, or death by or as if by burning; hence, severe trial; affliction.
7. Fever; inflammation; burning heat, arising from disease or suffering.
8. Fig.: **a** Liveliness of imagination or fancy; genius; inspiration; vivacity. "A poet's *fire*." *Pope.* **b** Ardor of passion; consuming love or hate. **c** Ardor of spirit or temperament; courage; zeal; enthusiasm; fervor.
9. Brilliancy; luminosity; hence, a star or other glowing object. "Stars, hide your *fires*." *Shak.*
10. The heating powers of a substance; hence, liquor. *R.*
11. The discharge of firearms; firing; as, the troops were exposed to a heavy *fire*.
on fire, burning; hence, ardent; passionate; eager; zealous. — **under f.**, exposed to an enemy's fire; in battle.
fire, *v. t.*; FIRED (fīrd); FIR'ING (fīr'ĭng). **1.** To set on fire; to kindle; ignite; as, to *fire* a house or chimney.
2. Hence: **a** To burn; cauterize. **b** To subject to intense heat; to bake; to burn in a kiln; as, to *fire* pottery. **c** To feed or serve the fire of; as, to *fire* a boiler.
3. Fig.: **a** To animate; to give life or spirit to; as, to *fire* the genius of a youth. **b** To inflame; to irritate, as the passions; as, to *fire* the soul with anger, pride, or revenge.
Love had *fired* my mind. *Dryden.*
4. To light up as if by fire; to illuminate.
[The sun] *fires* the proud tops of the eastern pines. *Shak.*
5. To drive away or out by or as if by fire. *Obs. or R.*
Till my bad angel *fire* my good one out. *Shak.*
6. To cause to explode; as, to *fire* a mine; to discharge; as, to *fire* a musket or cannon; to *fire* cannon balls, rockets, etc.; — often with *off*.
7. To project forcibly, as if from a gun; to hurl. *Colloq.*
8. To eject forcibly; to discharge from a position; to expel summarily; — often with *out*. *Slang.*
to fire off. **a** To discharge. See def. 6, above. **b** To stop the burning of (a kiln).
fire, *v. i.* **1.** To take fire; to be kindled; to kindle; hence, to glow or redden; to become illumined.
2. To be irritated or inflamed with passion.
3. To discharge artillery or firearms; as, he *fired* at them.
4. To go off, as a gun. *Obs. or R.*
5. To throw or hurl anything violently. *Colloq.*
6. **a** Of flax, to become covered with dark blotches. **b** Of corn or grain, to turn yellow prematurely, as from drought.
7. *Bowls.* To deliver a bowl straight at the jack with great force, to diminish as much as possible the effect of the bias of the bowl, so as to scatter the opponent's bowls.
8. *Bell Ringing.* To ring all the bells in a chime at once.
to fire away, to begin anything, esp. speech, and proceed with it rapidly. — **to f. up.** **a** To light a fire, as in a furnace. **b** To grow irritated or angry. "He . . . *fired up*, and stood vigorously on his defense." *Macaulay.*
fire action. *Mil.* Artillery or small-arm fire considered as an element of attack or defense.
fire alarm. **a** A signal given on the breaking out of a fire. **b** An apparatus for giving such an alarm.
fire'arm' (fīr'ärm'), n. Any weapon from which a shot is discharged by an explosive, as gunpowder; — usually applied only to small arms. — **fire'armed'** (-ärmd'), *a.*
fire assay. An assay in which the dry material is subjected to high heat. See CUPELLATION.
fire'back' (fīr'băk'), *n.* **1.** Any of several species of pheasants of the genus *Lophura*, having the lower back a bright, fiery red. They inhabit southern Asia and the East Indies. Called also **fire'-backed' pheas'ant** (-băkt').
2. The back wall or back lining of a fireplace or furnace.
fire'ball' (fīr'bôl'), n. **1.** **a** *Mil.* A ball filled with powder or other combustibles, intended to be thrown among the enemy, to injure by explosion, to set fire to their works, or to furnish light so that movements may be seen. **b** A luminous meteor, resembling a ball of fire passing through the air, and sometimes exploding. **c** Ball lightning.
2. *Her.* A grenade or bomb, fired proper.
3. A ball of coal dust and clay used as kindling material.
fire bar. A bar of a grate or boiler furnace.
fire beetle. Any of various beetles having light-producing organs, but popularly applied esp. to the elaterid beetles of the genus *Pyrophorus* of tropical America, called *cucujos*, of which *P. noctilucus* is one of the largest and best-known. Its luminous organs are at the sides of the thorax and base of the abdomen, and the light produced is so abundant and brilliant that it is said to be put to practical uses by the natives. See FIREFLY.
fire bill. *Naut.* A list of the stations of officers and crew in case of fire.
fire'bird' (fīr'bûrd'), *n.* The Baltimore oriole.
fire boat. **1.** A steamer equipped with steam pumps and other apparatus for fighting fire on or from the water.
2. A fire ship.
fire'bote', *or* **fire'boot'** (fīr'bōt'), *n.* *Law.* Firewood or fuel, or the right of a tenant to take it. *Obs.* or *Hist.*
fire box. **1.** The chamber of a furnace, steam boiler, etc., for the fire. See BOILER, 2d *Illust.*
2. A tinder box; also, a variety of fireworks. *Obs.*
fire'brand' (fīr'brănd'), *n.* **1.** A piece of burning wood.
2. One who inflames factions, or causes contention and mischief; an incendiary.
fire brick. A refractory brick, capable of sustaining high heat without fusion, usually of fire clay or other highly siliceous material, and used for lining fire boxes, etc.
fire clay. Clay capable of being subjected to high heat without fusing or softening perceptibly, and hence used for fire brick, crucibles, etc. It contains much silica and only small amounts of lime, iron, or alkalies.
fire'coat' (fīr'kōt'), *n.* A film of oxide on metal due to the action of fire or heat.
fire control. *Nav.* The organization of a ship's crew and battery whereby the fire of each gun, group of guns, or the entire battery, may be controlled and regulated from a central station, as to target, range, and projectile.
fire crack. A crack which forms in a metal while it is being reheated or annealed. — **fire'-crack'**, *v. i.*
fire'crack'er (fīr'krăk'ẽr), *n.* A cylinder, usually of paper, containing an explosive and a fuse to be lighted by hand, discharged to make a noise, esp. on festivals, such as Independence Day in the United States.
fire damp. *Mining.* A combustible gas or "damp" formed by decomposition of coal or other carbonaceous matter, and consisting chiefly of methane (light carbureted hydrogen); also, the explosive mixture formed by this gas with air.
fire'dog' (fīr'dŏg'; 205), *n.* A support for wood in a fireplace; an andiron. They are usually in pairs.
fire door. **1.** The door or opening through which fuel is supplied to a furnace or stove.
2. A fireproof door in a building.
fire'drake' (fīr'drāk'), **fire'drag'on** (-drăg'ŭn), *n.* [AS. *fȳrdraca*; *fȳr* fire + *draca* a dragon. See FIRE; DRAKE a dragon.] **1.** A drake or dragon breathing fire, a monster frequent in Teutonic mythology, esp. as the guardian of a treasure; — sometimes with specific allusion to the dragon which in the second episode of "Beowulf" is slain by and slays the hero. See BEOWULF, FAFNIR.
2. A fiery meteor; an ignis fatuus; a rocket. *Obs.*
3. **a** An alchemist's helper at the furnace. *Obs.* **b** A fireman. *Obs.* **c** A fire eater (in sense 2). *Obs.*
fire drill. **a** A primitive device for kindling fire, consisting of a stick revolved between the hands or by a bow, against a block of softer wood. **b** A practice drill with fire-extinguishing apparatus or in the conduct and manner of exit to be followed in case of fire.
fire eater. **1.** A juggler who pretends to eat fire.
2. A quarrelsome person who seeks affrays; a hotspur; specif., *U. S. Hist.*, a violent Southern partisan before the Civil War (so called by Northern opponents). *Colloq.*
fire engine. **1.** An apparatus for throwing a jet of water



A form of Fire Engine. 1 Play Pipes; 2 Air Chamber; 3 Steam Cylinder; 4 Oiler; 5 Steam Chest; 6 Throttle; 7 Water Gauge; 8 Steam Gauge; 9 Try Cocks; 10 Smokestack; 11 Dome; 12 Whistle; 13 Suction Hose; 14 Water Column; 15 Suction Connection; 16 Pumps; 17 Discharge Valve and Gate; 18 Flywheel; 19 Supply Tank; 20 Brake Lever; 21 Gong

to extinguish fires; formerly, a pump, usually a kind of force pump with an air chamber to insure a steady flow, or an arrangement of two pumps working alternately; more recently, a direct-coupled steam engine and pump on wheels, drawn by horses or self-propelled, or any motor direct-coupled to a pump and portable; also, a portable device on the principle of the fire extinguisher, esp. one for ejecting a current of carbonated water (called in full **chemical fire engine**, or simply **chemical engine**).
2. *Obs.* **a** A steam engine. **b** An apparatus for producing a current of warm air.
fire escape. Any means or contrivance for facilitating escape from a burning building; esp.: **a** An arrangement of light iron ladders with landings, attached to the outside of a building. **b** An extensible portable ladder used by firemen on the outside of a building.
fire extinguisher. One that puts out, or extinguishes, fire; specif., a portable hand contrivance for ejecting water or some incombustible gas. A common form consists of a strong copper tank, lined with lead, containing a solution of sodium bicarbonate and a bottle of sulphuric acid arranged so that on turning a handle or reversing the tank the acid feeds automatically into the solution, generating large quantities of carbon dioxide and forcing a stream of highly carbonated water from an attached hose.
fire fan, *n.* **1.** A hand fire screen. *Obs.*
2. A blast apparatus for a portable forge.
fire'-fanged' (fīr'făngd'), *p. a.* [See FANG, *v.*] Injured as by fire; scorched; — said of manure, grain, or cheese which has lost its goodness and acquired a smoky appearance, odor, or taste, in consequence of heat generated by decomposition or otherwise.
fire flag. **1.** A meteoric flash, as of lightning.
2. *Naut.* A flag flown as a signal of distress because of fire.
fire'flaught' (fīr'flôt'; *Scot.* -flăkt'), *n.* [*fire* + *flaught* a flake, flash.] *Chiefly Scot.* **1.** Lightning, esp. a flash of lightning; a gleam, as of fire; flash.
2. The aurora borealis.
fire'fly' (fīr'flī'), *n.*; *pl.* -FLIES (-flīz'). In popular language, any nocturnal winged light-producing insect. They are mostly beetles belonging to two families, Lampyridæ and Elateridæ, and hence are more correctly termed *fire beetles*, which name is, however, usually applied only to the large tropical species of the last-mentioned family. (See FIRE BEETLE.) The ordinary fireflies are small, rather elongated, flattened, soft-bodied beetles of the family Lampyridæ, the common North American species belonging to the genera *Photinus* and *Photuris*. They produce a bright, soft, intermittent light, without sensible heat, from an organ in the lower part of the abdomen. This organ appears to be a specialized part of the fat body, and is supplied with nerves and abundant tracheæ. The light is supposed by some to be caused by oxidation of a substance secreted by the cells. In many of these beetles the female is wingless; in some the larva is luminescent. These wingless females and larvæ are popularly termed *glowworms*.



American Firefly. *a* Adult Beetle of *Photuris pennsylvanica*; *b* Larva of another *Photuris*. Somewhat enlarged.

fire'guard' (fīr'gärd'), *n.* **1.** A protecting shieldlike wire screen or grating placed before or fitting over the front of an open fireplace. Cf. FENDER **1**.
2. Land plowed or cleared as protection against forest or prairie fires.
fire house. **1.** A house with a fireplace, in distinction from outhouses. *Obs.* or *Dial. Eng.*
2. A building housing fire-extinguishing apparatus. *U. S.*
fire iron. **1.** A piece of iron or steel on which to strike a light. *Obs.* or *Hist.*
2. *pl.* Utensils for a fireplace or grate, as tongs, poker, etc.
fire limits. The limits fixed by a town or city government within which no framed structure may be built and no building may have a shingled roof.
fire line. **1.** Usually in *pl.* Police barriers or lines about burning buildings.
2. *Forestry.* A belt of land from which trees and underbrush are burned off as a protection against forest fires.
fire'lock' (fīr'lŏk'), n. An old form of gunlock, as the wheel lock or flintlock, which ignites the priming by a spark; hence, a gun having such a lock.
fire'man (-măn), n.; *pl.* -MEN (-mĕn). **1.** A gunner. *Obs.*
2. A man whose business is to extinguish fires; a member of a fire company.
3. A man who tends or serves fires; a stoker.
4. *Mining.* One who examines the workings of a mine to see that no fire damp is present and that conditions are safe. *Eng.*
fire'-new', *a.* Fresh from the forge; bright; brand-new.
Your *fire-new* stamp of honor is scarce current. *Shak.*
fire pink. **a** A scarlet-flowered catchfly (*Silene virginica*) of the eastern United States. **b** The painted cup.
fire'place' (fīr'plās'), n. The part of a chimney appropriated to the fire, usually an open recess in a wall; a hearth.
fire plug. A plug or hydrant for drawing water from the mains in a street, building, etc., for extinguishing fires.
fire pot. A pot that holds fire; specif.: **a** *Mil.* A small earthen pot filled with combustibles, formerly used as a missile in war. *Obs.* **b** The vessel which holds the fuel or fire in a furnace. **c** A crucible. **d** A solderer's furnace.
fire'proof' (fīr'prōōf'; 87), *a.* Proof against fire; relatively incombustible. *Fireproof* is often, if not generally, used,

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fir ball. = FIR APPLE.
fir balsam. = BALSAM FIR a.
fir beech. The linden. *Obs.*
fir bob. = FIR APPLE.
fire'a·ble. *a.* See -ABLE.
fire adjuster. One who adjusts claims against insurance companies for losses by fire.
fire ant. A stinging ant.
fire area. **a** Area subjected to a conflagration. **b** *Mil.* Area of land or water effectively covered by gun fire.
fire arrow. *Mil.* An arrow or dart with inflammable substances attached.
fire balloon. **a** A balloon raised in the air by the buoyancy of air heated by a fire placed in the lower part. **b** A balloon sent up at night with fireworks which ignite at a regulated height.
fire'bare', *n.* [Cf. AS. *fȳr* fire + *bær* ...g.] A beacon. *Obs.*
fire barrel. A cylinder containing combustibles, used on fire ships ... a creaset.
fire basket. A portable grate.
fire beater. [Cf. ... demand.] A stoker. *Rare.* *Eng.*
fire'-bel'lied toad. A toad (*Bombinator igneus*) of central and eastern Europe, with red or orange patches on its under parts.
fire blast. A disease of plants, esp. of hops, causing them to appear scorched.
fire'blende' (-blĕnd'), *n.* [G. *feuerblende.*] Pyrostilpnite.
fire blight. = PEAR BLIGHT.
fire board. *Mining.* A board displaying the word *fire* as a danger warning for fire damp.
fire'board', *n.* A screen to close a fireplace when not in use.
fire'bolt', *n.* A thunderbolt; lightning. **fire'bolt'ed**, *a.*
fire boss. *Coal Mining.* = GASMAN, 2; FIREMAN, 4. *U. S.*
fire'brat', *n.* [*fire* + *brat.*] A thysanurous insect (*Thermobia domestica*) of the Lepismatidæ, of Europe and America, that lives about fireplaces and ovens.
fire'break', *n.* A plowed or cleared space made to check a forest or prairie fire. *U. S.*
fire bridge. See BRIDGE, *n.*, 5 d.
fire brigade. An organized body of firemen.
fire bug. Incendiary; pyromaniac. *U. S.*
fire cherry. The wild red cherry (*Prunus pennsylvanica*).
fire churn. = FIRE DRILL a.
fire cock. A cock to furnish water for extinguishing fires.
fire command. *Mil.* In the United States coast artillery, a group of guns or batteries under the immediate effective command of one officer; the lowest tactical unit of fire control.
fire commander. *Mil.* The senior officer of a fire command.
fire company. **a** A company of men organized for extinguishing fires. **b** A fire-insurance company. *Chiefly Eng.*
fire'crest' (-krĕst'), *n.* A small European kinglet (*Regulus ignicapillus*), with a bright red crest; — called also **fire'-crest'ed wren.**
fire cross. See FIERY CROSS.
fired (fīrd), *a.* **1.** Tested, or purified, by fire; fiery. *Obs.*
2. *Her.* Represented as on fire; — said of a fire ball.
fire department. A municipal or town department in charge of public protection against fire.
fire eating. Practice or principles of a fire eater.
fire edge. The edge of a weapon tempered by fire; fiery spirit. *Obs.* or *Dial. Eng.*
fire'-eyed', *a.* Having glowing eyes.
fire'fang' (-făng'), *n.* [See FANG, *v.*] State of being scorched or overheated. — *v. t.* To subject to fire; singe; scorch.
fire finch. Any weaver bird of the genus *Euplectes*; — so called from its red colors.
fire'fish', *n.* Any of several singular marine fishes of the genus *Pterois*, family Scorpænidæ, of the Indo-Pacific region. They are usually largely red, and have very large spinose pectoral and dorsal fins.
fire flair or **flare.** A ribbon fish (*Trygon pastinaca*).
fire'flame', *n.* The European band fish (*Cepola rubescens*).
fire'flirt', *n.* The European redstart.
fire'-free', *a.* Fireproof. *Obs.*
fire gilding. *Fine Arts.* A mode of gilding with an amalgam of gold and quicksilver, the latter metal being driven off by heat. Hence **fire gilt.**
fire grass. The parsley piert.
fire grenade. A hand grenade.
fire hangbird. The Baltimore oriole.
fire hearth. **1.** A hearth.
2. A cooking range for ships.
fire hook. **1.** A strong hook for tearing down buildings, beams, etc., in case of fire.
2. A hook for raking a furnace fire.
fire'-hot', *a.* Hot as fire.
fire hunt. A night hunt in which torches or other lights are used.
fire'-hunt', *v. i.* To engage in a fire hunt.
fire insurance. See INSURANCE.
fire lane. = FIRE LINE, 2.
fire'-leaves', *n.* *Dial. Eng.* **a** Any of several species of *Plantago*, esp. *P. media*. **b** The blue scabious (*Scabiosa succisa*).
fire'less, *a.* See -LESS.
fire'light', *n.* **1.** The light of a domestic or camp fire.
2. Lightning; aurora borealis. *Obs.*
fire lighter. A composition used for kindling a fire.
fire'like, *a.* See -LIKE.
fire'ling, n. See -LING.
fire'ly, *a.* Ardent. *Obs.* — *adv.* Ardently; eagerly. *Obs.*
fire main. A pipe for water to be used in putting out fire.
fire'man·ship, *n.* See -SHIP.
fire marble. = LUMACHEL.
fire'mas'ter, *n.*, or **fire master.** **a** *Mil.* An artillery officer who formerly supervised the making of fireworks. *Obs.* **b** One who directs firemen.
fire mist. *Astron.* Quasi-nebulous light resolvable into stars.
fir·en, *a.* [AS. *fȳren.*] Full of fire; flaming. *Obs.*
Fire Nation. See MASCOUTEN.
fire net. A net to catch a person who jumps from a burning building.
fire office. A fire-insurance office. *Eng.*
fire'-on-the-moun'tain, n. = POINSETTIA, 2.
fire opal. = GIRASOL.
fire pan. A pan for holding or conveying fire; esp., the receptacle for the priming of a gun.
fire pike. A poker; a pike carrying combustibles. *Obs.*

G H I J K L M

leg′is·la′ture (lĕj′ĭs·lā′tůr), *n.* [See LEGISLATOR.] **1.** The hody of persons in a state, or politically organized hody of people, invested with power to make, alter, and repeal laws; a legislative hody. The legislature of Great Britain consists of the Lords and Commons, with the king or queen, whose sanction is, in theory, necessary to every hill before it becomes a law. The legislature of the United States is usually distinctively called *Congress* (which see). In the various States the legislature is often specifically called the *General Assembly.* It is a hicameral hody, of which the lower house is usually called the *House of Representatives* (sometimes the *House of Delegates* or *Assembly*) and the upper house is always known as the *Senate.* The signature of the executive is required to a hill hefore it hecomes a law, unless it is again passed over his veto usually hy more than a bare majority. See ASSEMBLY, REPRESENTATIVE, SENATE, VETO, EXECUTIVE, JUDICIARY.

☞ The legislatures of some of the more important states, having constitutional government, are given helow.

2. The function or act of legislating; legislation.

TABLE OF LEGISLATURES

STATE	LEGISLATURE, OR PARLIAMENT	UPPER HOUSE: NAME	UPPER HOUSE: NO. OF MEMBERS — HOW CHOSEN OR COMPOSED — TERM OF OFFICE	LOWER HOUSE: NAME	LOWER HOUSE: NO. OF MEMBERS — SUFFRAGE — TERM OF OFFICE
Argentina	National Congress[1]	Senate[2]	30 — 2 from each Province and 2 from capital — 9 years	House of Deputies[3]	158 (1 to 49,000 pop.) — Manhood — 4 years.
Australia	Federal Parliament	Senate	36 — 6 from each State — 6 years	House of Reps.	75 — Universal — 3 years.
Austria	Bundesversammlung	Bundesrat	50 — Chosen by provincial diets — For different terms	Nationalrat	165 — Universal — 4 years.
Belgium	The Chambers	Senate (Sénat)	159 — Part direct, part indirect — 4 years	Chamber of Reps.	187 (1 to 40,000 pop.) — Universal — 4 years.
Brazil	Natioual Congress[4]	Senate[2]	63 — Direct, elected, 3 for each State, 3 for Federal District — 9 years	Chamber of Deputies[5]	212 (1 to 70,000) — Manhood — 3 years.
Canada	Parliament	Senate	96 — Apportioned to Provinces according to pop.; nominated by Gov.-Gen. — For life	House of Commons	245 — Universal — 5 years.
Chile	National Congress[1]	Senate[6]	45 (1 to 3 Deputies) — Direct — 8 years, one half reoewable every 4 years	Chamber of Deputies[3]	142 (1 to 30,000 pop.) — Manhood and limited education — 4 years.
China	State Council	Five Yuan*		Legislative Yuan*	
Cuba	Congress[7]	Senate[2]	36 — Direct — 9 years	Chamber of Reps.[8]	126 (1 to 25,000) — Universal — 6 years.
Czechoslovakia	National Assembly	Senate (Senát)	150 — Direct, on principle of proportiooal representation — 8 years	Chamber of Deputies	300 — Universal — 6 years.
Denmark	Rigsdag	Landstiog	76 — 57 indirect; 19 elected by former Landsting — 8 years	Folketing	149 (mostly by proportional representation) — Universal — 4 years.
Finland		Eduskunta	200 — Direct and proportional; universal — 3 years		(One house only.)
France	National Assembly	Senate (Sénat)	314 — Indirect — 9 years	Chamber of Deputies[9]	615 — Manhood — 4 years.
†**Germany**	Parliament	Reichsrat	66 — Appointed by the governmeots of the States — Annual session	Reichstag	647 — Universal, on proportional basis — 4 years.
Great Britain	Parliameot	House of Lords	About 720 — See HOUSE OF LORDS	House of Commons	615 — See HOUSE OF COMMONS — 5 years, or until dissolution.
Greece	Parliament	Senate	120 — Direct, 92; by organizations, 18; by Parliament, 10 — 9 years	Boule (Vouli)	250 — Universal — 4 years.
Hungary	Parliament	Felsöház	244 — Various, hy groups — 10 years	Képviselöház	245 — Universal — 5 years.
Irish Free State	Parliament (Oireachtas)	Senate (Seanad (Eireann)	60 — Direct — 9 years	Dail Eireann	153 — Universal — 5 years.
Italy	Parliameot	Senate (Senato)	About 375, but no limit in theory — Royal princes; life members nominated by the crown — Hereditary or life	Chamber of Deputies[10]	400 — Manhood suffrage on list selected by Fascist Grand Council — 5 years.
Japan	Imperial Diet	House of Peers	Not fixed, about 400 — Royalty; nobility; maoy various classes — For life or 7 years	House of Representatives	466 (1 to ab. 133,300 pop.) — Manhood — 4 years.
Mexico	Coogress[7]	Senate[6]	58 — Direct, 2 elected from each State, 2 from Federal District — 4 years	Chamber of Deputies[3]	185 (1 to 100,000 pop.) — Universal — 2 years.
Netherlands	States-General	First Chamber	50 — Elected by Provincial States from largest taxpayers, etc. — 6 years	Second Chamber	100 — Universal — 4 years.
New Zealand	General Assembly	Legislative Council	22 — Direct — 7 years	House of Reps.	80 (incl. 4 Maoris) — Universal — 3 years.
‡**Norway**	Storting	Lagting	One fourth of Storting. See Note	Odelsting	Three fourths of Storting. See Note.
Poland	Parliament	Senate (Senat)	111 — Direct and proportional; universal suffrage — 5 years	Diet (Sejm)	444 — Universal — 5 years.
Portugal	Cortes Geraes	National Assembly	90 — 45 by corporatioos, 45 direct — 7 years		(One house only)
Rumania	Parliament	Senate (Senatul)	About 250 — Some elected by political divisions; some life senators (former officials, etc.) — 4 years	Chamber of Deputies[11]	387 — Manhood — 4 years.
Russia	Union Central Executive Committee	Union Council	472 — Elected by Union Soviet Congress (oo basis of proportional representation of 7 republics) — 1 year	Council of Nationalities	138 — Elected (5 for each indepeodeot and autonomous republic, and 1 for each autonomous region). Manhood, limited to workers only — 1 year.
South Africa, Union of	Parliament	Seoate	40 — 8 nominated by Gov.-General, 32 elected, 8 for each Province — 10 years	House of Assembly	148 — Universal — 5 years
Spain		Cortes	470 — Direct, on principle of proportional representation — 4 years		(One house only)
Sweden	Diet (Riksdag)	Första Kammareo	150 — Elected by provinces or municipal corporations — 8 years	Andra Kammaren	230 — Universal and proportional — 4 years
Switzerland	Bundesversammlung	Ständerat	44 — Elected, 2 from each canton, method of election and term left to each canton — From one to 3 years	Natioo alrat	187 (1 to 22,000 pop.) — Universal — 4 years.
United States	Congress	Senate	96 (1934) — See SENATE — 6 years	House of Reps.	435 (1934) — See HOUSE OF REPRESENTATIVES — 2 years.
Yugoslavia	Parliameot	Senate (Senat)	76 — 29 appointed hy the Crown, 47 elected — 6 years	Chamber of Deputies[12]	305 (1 to 50,000) — Manhood — 4 years.

* The government of China under the Organic Law promulgated at Nankiog, Dec. 29, 1931, is so entirely different from that of most couotries that the details cannot be given in this Table. † German governmeot under Nazi control (1934) in transitional stage.
‡ Memhers of the Storting are chosen for three years by direct electioo by uoiversal suffrage, fifty being elected from the towns and one hundred from the rural districts. The Storting on assembling divides into the Lagting including one fourth (38) aod the Odelstiog including three fourths (112) of the total membership of the Storting. All new laws are laid first before the Odelsting.
[1] Sp., Congreso Nacional. [2] Sp. & Pg., Senado. [3] Sp., Cámara de Diputados. [4] Pg., Congresso Nacional. [5] Pg., Cámara dos Deputados. [6] Sp., Cámara de Seoadores. [7] Sp., Congreso. [8] Sp., Cámara de Representantes. [9] Fr., Chambre des Députés. [10] It., Camera dei Deputati. [11] Rum., Camera Deputatilor. [12] Serbo-Croatian, Skupshtioa.

le′gist (lē′jĭst), *n.* [F. *légiste*, fr. ML. *legista*, fr. L. *lex*, *legis*, law. See LEGAL.] One skilled in the law. Cf. JURIST.

leg′i·tim (lĕj′ĭ·tĭm), *n.* [F. *légitime*, fr. *légitime* legitimate, fr. L. *legitimus*. See LEGITIMATE, *adj.*] *Roman & Civil Law.* The portion of an estate to which, upon the death of the father, the children are entitled, or, in later Roman law, in default of children, ascendants, or in some cases hrothers and sisters. It includes hoth real and personal property in Roman law and in some modern systems; hut in Scots law, and as it formerly existed in English law, it includes only movables. In South Africa legitim was abolished hy Cape Act 23, 1874, § 2, and (for the Transvaal) by Proclamation 28, 1902. In Roman law it was one fourth, later, under Justinian, one third, and in some cases one half. In Scots law it is one third, and is due from hoth the father's and (since 1881) the mother's estate. It cannot be affected hy any testamentary provision made by the decedent without cause. Cf. DEAD'S PART.

le·git′i·ma·cy (lê·jĭt′ĭ·mȧ·sĭ), *n.* [From LEGITIMATE, *adj.*] State or quality of being legitimate; as, the *legitimacy* of a child, a sovereign or his right to rule, a reason, etc. Any child horn during coverture or after coverture has ceased by reason of the hushand's death is presumed to he legitimate, except upon proof of a sufficient time since cohahitation or death to preclude the possihility. The length of time necessary is not fixed, hut in general is not more than nine calendar months or 40 weeks. Cf. GESTATION.

le·git′i·mate (lê·jĭt′ĭ·mĭt), *adj.* [ML. *legitimatus*, past part. of *legitimare* to legitimate, fr. L. *legitimus* legitimate. See LEGAL.] **1.** Lawfully hegotten; horn in wedlock; having, or involving, full filial rights and ohligations hy hirth. Cf. ILLEGITIMATE, ADOPTION.
2. Real; genuine; not false, counterfeit, or spurious.
3. Accordant with law or with estahlished legal forms and requirements; lawful; as, *legitimate* government, proceedings. Hence, existing or ruling hy virtue of, or hased upon, a hereditary right; as, a *legitimate* monarch.
4. Conforming to recognized principles, or accepted rules or standards; as, *legitimate* reasoning; *legitimate* drama.
5. Reasonahle; to he expected; as, a *legitimate* result.
Syn. and **Ant.** — See LAWFUL.
— **le·git′i·mate·ly**, *adv.* — **le·git′i·mate·ness**, *n.*

le·git′i·mate (lê·jĭt′ĭ·māt), *v. t.*; -MAT′ED (-māt′ĕd; -ĭd; 119); -MAT′ING (-māt′ĭng). To make legitimate; specif.: **a** To make lawful or legal; to give legal force or authorization to; as, to *legitimate* silver. Hence, to authorize or justify. "Even to *legitimate* vice." *Milton.* **b** To put (a hastard) in the position or state of a legitimate child before the law, hy legal means; — distinguished from *adopt*, which has no reference to hlood relation. By the common law, as it still exists in England and Ireland and in some States of the United States, bastards cannot be legitimated; but in Scotland and on the continent of Europe generally, and by statute in many States of the United States, children are now legitimated hy the subsequent marriage of their parents, provided the parents might legally have married at the time of the child's hirth.

legitimate drama, *or* **le·git′i·mate** (-mĭt), *n.* Orig., drama of literary value as opposed to farce and melodrama; later, spoken drama with plot, dialogue, and action.

le·git′i·ma′tion (lê·jĭt′ĭ·mā′shŭn), *n.* [ML. *legitimatio.*] Act or process of making legitimate; also, state of being legitimate.

le·git′i·ma·tist (lê·jĭt′ĭ·mȧ·tĭst), *n.* A legitimist.

le·git′i·ma·tize (lê·jĭt′ĭ·mȧ·tīz), *v. t.*; -TIZED (-tīzd); -TIZ′ING (-tīz′ĭng). To legitimate.

leg′i·time (lĕj′ĭ·tĭm), *adj.* Legitimate. *Obs.* — *n.* Legitim.

le·git′i·mist (lê·jĭt′ĭ·mĭst), *n.* [F. *légitimiste.*] One who supports legitimate authority, esp. a monarchy, on the ground of hereditary right. Specif. [*cap.*], a supporter of the claims of the elder hranch of the Bourhon dynasty to the crown of France. See CARLIST, 1. — **le·git′i·mism** (-mĭz′m), *n.* — **le·git′i·mist**, *adj.* — **-mis′tic** (-mĭs′tĭk), *adj.*

leg′i·tim′i·ty (lĕj′ĭ·tĭm′ĭ·tĭ), *n.* [F. *légitimité.*] Legitimacy; also, legitimism. *Rare.*

le·git′i·mize (lê·jĭt′ĭ·mīz), *v. t.*; -MIZED (-mīzd); -MIZ′ING (-mīz′ĭng). To legitimate. — **le·git′i·mi·za′tion** (-mĭ·zā′shŭn; -mī·zā′shŭn), *n.*

leg′len (lĕg′lĕn), *n.* [Cf. LG. *legel* a wooden vessel.] A milk pail. *Scot.*

leg′let (lĕg′lĕt; -lĭt; 119), *n.* [*leg* + *-let.*] **1.** A small leg. **2.** An ornamental hand or ring for the leg ahove the calf.

le′goa (lā′gwȧ), *n.* [Pg. *légoa*, *légua*. See 1st LEAGUE.] See MEASURE, *Table.*

leg′–of–mut′ton, *adj.* Having the general shape or outline of a leg of mutton.

leg–of–mutton rig. = BERMUDIAN RIG.

leg–of–mutton sail. *Naut.* A triangular sail with its apex at the masthead. See SHARPIE, *Illust.*

le′go–lit′er·ar′y (lē′gô·lĭt′ẽr·ĕr′ĭ; -ẽr·ĭ), *adj.* Pertaining to the literature of law.

leg′piece′ (lĕg′pēs′), *n.* *Mining.* An upright timher supporting the cap of a timher set; — called also *post.*

leg′pull′er (-pŏŏl′ẽr), *n.* A person who "pulls one's leg." — **leg′pull′** (-pŏŏl′), *n.* — **leg′pull′ing**, *n.* *All Slang.*

Le·gree′ (lê·grē′), **Simon.** In Mrs. Stowe's novel *Uncle Tom's Cabin*, a brutal slave dealer. Hence, a cruel taskmaster; any hrutal person.

leg′rope′ (lĕg′rōp′), *v. t.* To rope by or as hy the leg. *Colloq.*

leg stump. *Cricket.* The stump on the leg, or "on," side.

leg trap. *Cricket.* A play in which the howler places a ring of fielders on the leg side of the field and endeavors to entice the hatsman to offer them a catch.

le·guan′ (lĕ·gwän′), *n.* [Cf. IGUANA.] Any large lizard.

Leg′u·a′ti·a (lĕg′ū·ā′shĭ·ȧ), *n.* [NL., after François *Leguat*, Huguenot exile.] *Paleontol.* A genus including an extinct rail (*L. gigantea*) ahout six feet high, found in the Mascarene Islands.

leg′u·le′ian (lĕg′ū·lē′yăn; -ăn), *adj.* [L. *leguleius* pettifogger, fr. *lex*, *legis*, law.] Lawyerlike; legal; — used derogatorily. — *n.* A lawyer. — **leg′u·le′ious** (-yŭs; -ŭs), *adj.*

leg′ume (lĕg′ūm; lê·gūm′; 277), *n.* [F. *légume*, fr. L. *legumen*, proh. fr. *legere* to gather. See LEGEND.] **1.** The fruit or seed of a leguminous plant, as peas, heans, etc., used for food; hence, any esculent vegetahle; — chiefly in menus. **2.** A leguminous plant, esp. one grown as a forage or green-manure crop, as any of various clovers, alfalfa, soyheans, etc. **3.** *Bot.* A superior one-celled monocarpellary fruit usually dehiscent into two valves, having the seeds attached along the ventral suture; — commonly called *pod*, and restricted to fruits of the pea family (Fahaceae). Indehiscent legumes are often jointed, and are then called ***loments***. See FRUIT, *Table & Illust.*

le·gu′me·lin (lê·gū′mĕ·lĭn), *n.* *Biochem.* An alhumin contained in the pea and many other leguminous seeds.

le·gu′men (lê·gū′mĕn), *n.*; *pl.* -MINA (-gū′mĭ·nȧ), -MENS (-mĕnz). [L.] *Bot.* A legume.

le·gu′min (-mĭn), *n.* *Biochem.* A glohulin found as a characteristic ingredient of the seeds of leguminous plants; vegetahle casein.

leg′u·min′i·form (lĕg′ū·mĭn′ĭ·fôrm; lê·gū′mĭ·nĭ·fôrm′), *adj.* Having the shape of a legume.

Le·gu′mi·no′sae (lê·gū′mĭ·nō′sē), *n. pl.* [NL. See LEGUMINOUS, LEGUME.] *Bot.* A large group of dicotyledonous plants, variously regarded as an order or family, and distinguished hy the characteristic fruit (see LEGUME, 3). The group is usually, and here, divided into the four families Krameriaceae, Mimosaceae, Fahaceae, and Caesalpiniaceae, of the order Rosales.

le·gu′mi·nose (lê·gū′mĭ·nōs), *adj.* Leguminous.

le·gu′mi·nous (lê·gū′mĭ·nŭs), *adj.* [L. *legumen*, *-minis*, pulse.] **1.** Pertaining to, or consisting or of the nature of, peas or other legumes; pulselike.
2. *Bot.* Of or pertaining to the Leguminosae.

leg viol. *Music.* A viola da gamba.

leg wood. The wood of large hranches. *Dial. Eng.*

leg worm. The guinea worm.

lehr, leer (lēr), *n.* An oven in which glassware is annealed.

lehr′bach·ite (lār′häk·īt), *n.* [From *Lehrbach* in the Harz Mountains.] *Mineral.* A lead-gray or iron-hlack lead mercury selenide occurring in granular masses. Sp. gr., 7.8.

lehr′man (lēr′măn), **lehrs′man** (lērz′-), *n.*; *pl.* -MEN (-mĕn). One who works at a lehr.

le·hu′a (lâ·hōō′ä), *n.* [Hawaiian.] A common, very showy tree (*Metrosideros polymorpha*) of the Pacific islands, having hright-red corymhose flowers and a hard wood; also, its hlossom, which is the Hawaiian floral emhlem. See STATE FLOWER, *Plate.* *Hawaii.*

‖**le′i** (lā′ē), *n.*; *pl.* LEIS (-ēz). [Hawaiian.] A wreath, garland, or ornamental headdress of leaves and flowers, or feathers, etc.

‖**lei** (lā), *n.*, *pl.* of LEU.

Leib·nitz′i·an (līp·nĭt′sĭ·ăn), *adj.* Pert. to Leihnitz or to Leihnitzianism. — *n.* An adherent of Leibnitzianism.

Leib·nitz′i·an·ism (līp·nĭt′sĭ·ăn·ĭz′m), *n.* The philosophy of Gottfried Wilhelm von Leihnitz, or Leihniz (1646–1716), a rationalistic and pluralistic spiritualism or idealism. His chief doctrines are: (1) The ultimate constituents of all reality are indestructihle and unchanging monads, which are spiritual heings or souls. They are unextended, hut possess resistance or force, from which property all the physical properties of matter are derived. (2) Monads of different types differ from one another in the degree of clarity with which they are conscious of or reflect the mind of God, and, hence, all reality. There is a continuous gradation, in this respect, from the clear consciousness of human souls down to inorganic things, which are like minds asleep. (3) The monads are "without windows." The whole drama of its life is shut up within each mind, in which it unfolds without external stimulation. What goes on in each mind accords with reality beyond it because of the harmony, pre-established by God, amongst all monads. (4) This is the best of all possible worlds (see OPTIMISM). God has chosen this out of an infinity of possible worlds for that reason. Apparent evil is not a positive reality but a mere privation, like darkness, which is necessary to the perfection of the whole, as shadows in a picture. (5) Knowledge at its best is conceptual, the apprehension by the mind of necessary truth. Perception is like a conception which is confused or blurred.

leg′is·ter, *n.* [OF. *legistre*, var. of *legiste.*] A legist. *Obs.*
‖**le′git** (lē′jĭt), *n.* [L., he reads or he has read.] A right to claim henefit of clergy. *Obs.*
legitimate portion. = LEGITIM.
legitimate tutor. See TUTOR.
leg′less, *adj.* See -LESS. — **leg′less·ness**, *n.*
leg′like′, *adj.* See -LIKE.
le′gua (lā′gwä), *n.* [Sp.] See MEASURE, *Table;* 1st LEAGUE, 1.
Le·ha′bim (lê·hā′bĭm). *Bib.*
Le′he·man (lē′hê·măn). *D. Bib.*
Le′hi (lē′hī), *n.* See LAMANITE.
Leib·niz′i·an, Leib·niz′i·an·ism (līp·nĭt′sĭ·ăn, -ĭz′m). Vars. of LEIBNITZIAN, LEIBNITZIANISM.

M

fruc'tose (frŭk'tōs; frŏŏk'-), *n.* [L. *fructus* fruit.] *Chem.* A sugar, $C_6H_{12}O_6$, of the class known as ketohexoses, occurring in three optically different forms, *d*-fructose (levulose or fruit sugar), *l*-fructose, and *dl*-fructose (inactive fructose, racemic fructose, or *α*-acrose). See LEVULOSE, ACROSE. *d*-fructose, though levorotatory, is so called because it is related in configuration to *d*-glucose and *d*-mannose; *l*-fructose, which is similarly related to *l*-glucose and *l*-mannose, is dextrorotatory.

fruc'to·side (frŭk'tō·sīd; -sĭd), *n.* Also **-sid.** [*fructose* + *-ide.*] Any of certain ethers of fructose. See GLUCOSIDE b.

‖**fruc'tu·a'ri·us** (frŭk'tū·ā'rĭ·ŭs), *n.; pl.* **-RII** (-ī). [L.] *Rom. Law.* A usufructuary.

fruc'tu·ar'y (frŭk'tū·ĕr'ĭ *or, esp. Brit.,* -ĕr·ĭ), *n.; pl.* **-ARIES** (-ĭz). [L. *fructuarius.*] A usufructuary. — *adj.* Of or pertaining to a usufruct; — used in designating a kind of stipulation in Roman law.

fruc'tu·os'i·ty (-ŏs'ĭ·tĭ), *n.* Fruitfulness.

fruc'tu·ose (frŭk'tū·ōs), *adj.* Fructuous. *Obs.*

fruc'tu·ous (frŭk'tū·ŭs), *adj.* [OF. *fructuous* (F. *fructueux*), fr. L. *fructuosus.*] **a** Fruitful; productive; profitable. *Chaucer.* **b** *Rare.* Promoting fertility. — **fruc'tu·ous·ly**, *adv.* — **fruc'tu·ous·ness**, *n.*

fru'gal (frōō'găl), *adj.* [F., fr. L. *frugalis*, fr. *frugi*, lit., for fruit, hence, fit for food, useful, proper, temperate, dative of *frux, frugis*, fruit; akin to L. *fructus.* See FRUIT.] **1.** Economical in the use or expenditure of resources; not wasteful or lavish; saving; sparing.

> Nature, wise and *frugal.* *Milton.*

2. Obtained by, or appropriate to, economy; as, a *frugal* fortune. "*Frugal* fare." *Dryden.*

Syn. — Provident, unwasteful, careful. — FRUGAL, THRIFTY, CHARY, SPARING, ECONOMICAL. FRUGAL is opposed to wasteful, luxurious, or lavish; THRIFTY implies industry, good management, and prosperity; as, "His mind was keen, intense, and *frugal*, apt for all affairs. . . . Far into the night the housewife plied her own peculiar work. . . . [Their] light was famous in its neighborhood, and was a public symbol of the life that *thrifty* pair had lived" (*Wordsworth*); "One cannot say he [Ben Jonson] wanted wit, but rather that he was *frugal* of it" (*Dryden*); a *frugal* meal; a *thrifty* bargain. CHARY implies a cautious, discriminating, sometimes unwilling attitude; SPARING (cf. *spare*, under THIN) connotes abstention or restraint; as, "The chronicler of worldly matters had best be *chary* of applying hard names to acts which young men are doing in the world every day" (*Thackeray*); "Nor will this *sparing* touch of noble books be any irreverence to their writers" (*Keats*). ECONOMICAL implies esp. the use of money or resources to the best advantage; as, to be *economical* in use of fuel. Cf. PARSIMONIOUS, SLENDER.

Ant. — Extravagant, wasteful, lavish, prodigal.

— **fru'gal·ly**, *adv.* — **fru'gal·ness**, *n.*

fru'gal·ism (-ĭz'm), *n.* Devotion to frugality. — **fru'gal·ist** (-ĭst), *n.*

fru·gal'i·ty (frōō·găl'ĭ·tĭ), *n.; pl.* **-TIES** (-tĭz). [F. *frugalité*, fr. L. *frugalitas.*] Quality of being frugal; careful management of resources; thrift; sparing use.

Syn. — Economy. **Ant.** — Waste, extravagance.

‖**fru'ges con·su'me·re na'ti** (frōō'gēz kŏn·sū'mē·rē nā'tī). [L.] Born to consume the fruits of the earth. *Horace.*

frug'gan (frŭg'ăn; frōōg'-), **frug'gin** (-ĭn), *n.* [F. *fourgon.*] An oven fork or poker. *Dial. Eng.*

fru·gif'er·ous (frōō·jĭf'ēr·ŭs), *adj.* [L. *frugifer*, fr. *frux, frugis*, fruit + *ferre* to bear.] Fruitful; fructiferous. *Obs.* — **fru·gif'er·ous·ness**, *n. Obs.*

fru·giv'o·rous (frōō·jĭv'ō·rŭs), *adj.* [L. *frux, frugis*, fruit + *-vorous.*] Feeding on fruit; also, *Zool.*, of or pertaining to the **Fru·giv'o·ra** (-rȧ), syn. of MEGACHIROPTERA.

fruit (frōōt; 242), *n.* [ME. *fruit, frut*, fr. OF. *fruit*, fr. L. *fructus* enjoyment, product, fruit, fr. *frui*, past part. *fructus*, to enjoy. See BROOK, *v. t.;* cf. FRUCTIFY, FRUGAL.] **1.** In the widest sense, any product of plant growth useful to man or animals, as grain, vegetables, cotton, flax, etc.; — commonly in the *pl.* "Six years thou shalt sow thy land, and shall gather in the *fruits* thereof." *Ex.* xxiii. 10. **2.** The edible, more or less succulent, product of a perennial or woody plant, consisting of the ripened seeds and adjacent tissues, or of the latter alone. In popular usage there is no exact distinction between a *fruit* and a *vegetable*, except where the latter consists of the stem, leaves, or root of the plant. Thus the apple, pear, orange, lemon, peach, plum, grape, banana, persimmon, pineapple, and most berries are generally recognized as *fruits;* the pea, bean, pumpkin, squash, eggplant, cucumber, etc., are vegetables; while the tomato, melon, and rhubarb are variously regarded. See def. 8, below. Cf. VEGETABLE. **3.** Hence: **a** Formerly, the fruit course; the dessert. *Shak.* **b** Collectively, a dish, a selection, a diet, of fruits; as, to pass the *fruit;* to live on *fruit.* **c** A single piece of fruit. **4.** A fruit-bearing plant; a food plant. *Obs.* **5** The produce of animals; offspring; young; as, the *fruit* of the womb, of the loins, of the body. *Archaic.* **6.** That which is produced; the effect or consequence of any action, operation, etc.; outgrowth; issue; consequence; advantage; benefit; as, the *fruits* of labor.

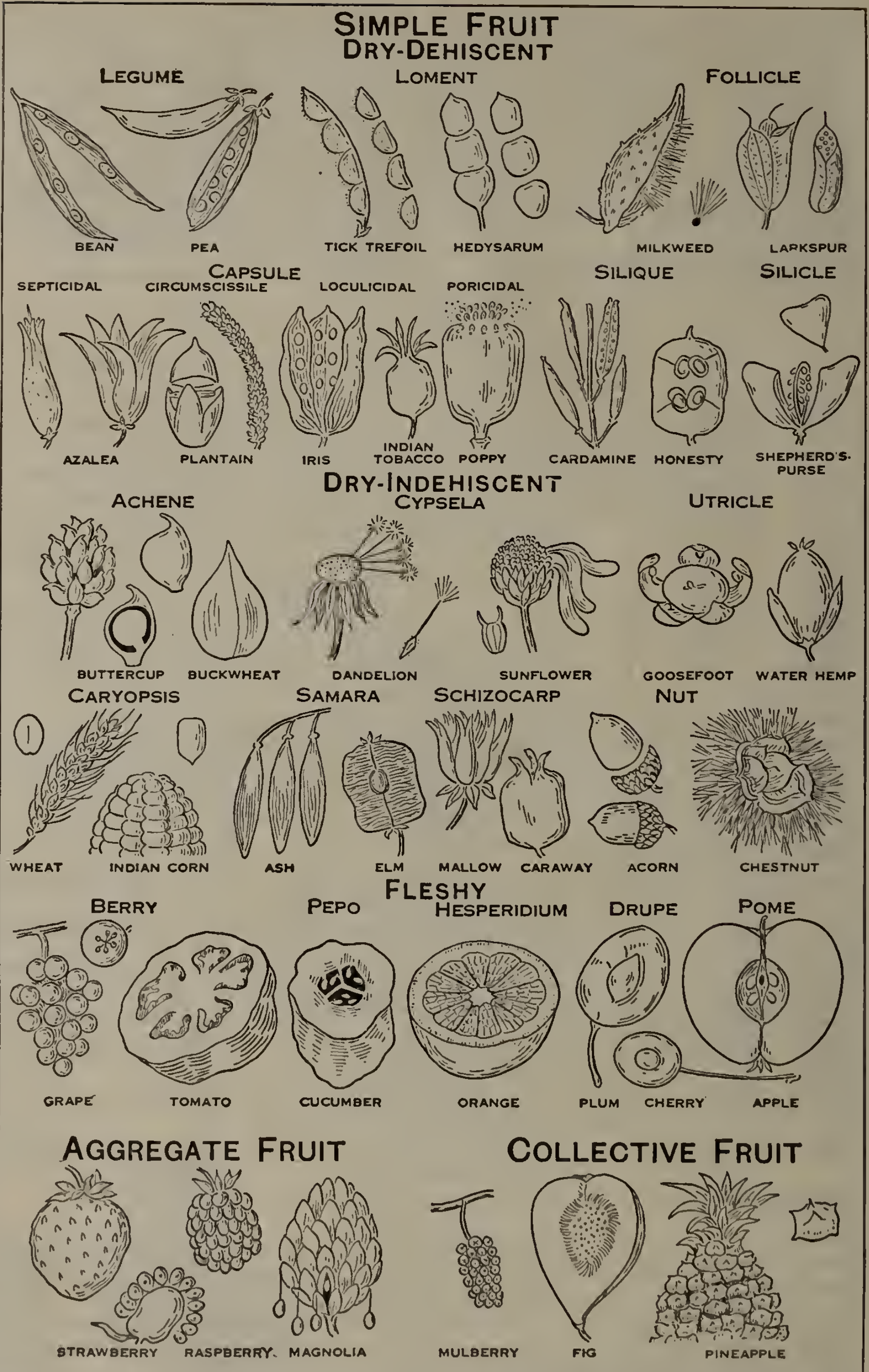
> They shall eat the *fruit* of their doings. *Is.* ii. 10.
>
> The *fruits* of this education became visible. *Macaulay.*

7 *Chiefly Brit.* Fellow; chap; — used in friendly greeting, as in the phrase *old fruit.* *Slang.* **8** *Bot.* **a** In general, any product of fertilization with its modified envelopes or appendages, as the cystocarp in certain algae, the sporogonium of a moss, etc. **b** Specif., and more commonly, the ripened ovary of a seed plant and its contents, including such adjacent tissues as may be inseparably connected with it, as the pod of a pea, the capsule of many annuals, etc. Fruits are *simple*, the product of a single enlarged ovary; *aggregate*, the product of the several ovaries of a single flower; or *collective* (multiple), derived from the more or less fused ovaries of several flowers. The principal kinds of fruit (in the botanical sense) are:

SIMPLE.
- DRY
  - *Dehiscent*
    - Legume (pod): bean, pea. (Cf. LOMENT.)
    - Follicle: milkweed, larkspur.
    - Capsule
      - [illegible] azalea.
      - [illegible] plantain. (Cf. PYXIDIUM.)
      - [illegible] iris, Indian tobacco.
      - [illegible] poppy.
    - [illegible] cardamine. (Cf. SILICLE.)
  - *Indehiscent*
    - Achene: buttercup, buckwheat. (Cf. CYPSELA, [illegible].)
    - Caryopsis (grain): wheat, Indian corn.
    - [illegible] (key fruit): ash, elm.
    - [illegible]: mallow, caraway.
    - Nut: acorn, chestnut.
- FLESHY
  - Berry: grape, [illegible]. (Cf. PEPO, HESPERIDIUM.)
  - Drupe (stone fruit): plum, olive. (See DRUPE.)
  - Pome: apple, pear.

AGGREGATE: [illegible] strawberry, raspberry, magnolia.
COLLECTIVE (MULTIPLE): mulberry, fig, pineapple.

9 *Wines & Liquors.* Vinosity, richness of flavor



☞ COMBINATIONS and PHRASES are:

fruit acid
fruit barrel
fruit basket
fruit bearing
fruit blossom
fruit bowl
fruit-bringing, *adj.*
fruit bug
fruit bush
fruit buyer
fruit can
fruit-candying, *adj.*
fruit cane
fruit canner
fruit canning
fruit cocktail
fruit crate
fruit culture
fruit dealer
fruit dish
fruit-drying, *adj.*
fruit eater
fruit-eating, *adj.*
fruit envelope
fruit-evaporating, *adj.*
fruit evaporator
fruit farm
fruit farmer
fruit farming
fruit flavor
fruit garden
fruit grader
fruitgrower
fruitgrowing
fruit jar
fruit jelly
fruit juice
fruit knife
fruit loft
fruit package
fruit packer
fruit packing
fruit-paring, *adj.*
fruit peddler
fruit peel
fruit picker
fruit picking
fruit pitter
fruit preservative
fruit preserver
fruit-producing, *adj.*
fruit pudding
fruit raiser
fruit raising
fruit salad
fruit seller
fruit shipper
fruit shop
fruit show
fruit sirup
fruit slicer
fruit sorter
fruit sprayer
fruit stall
fruit stand
fruit strainer
fruit tart
fruittime
fruit tree
fruit vendor
fruit wood

-fruit (-frōōt). A combining form of *fruit*, n., as in: **breadfruit, grapefruit, pearlfruit, splitfruit, starfruit.**

fruit (frōōt; 242), *v. t.;* FRUIT'ED; FRUIT'ING. To cause to bear fruit; to develop fruit upon; as, a well-*fruited* bough. — *v. i.* To bear or produce fruit; to come to fruition.

fruit'ade' (frōōt'ād'), *n.* See 1st -ADE b.

fruit'age (frōōt'ĭj), *n.* [F.] **1.** Fruit, collectively; fruit, in general. "Ambrosial *fruitage.*" *Milton.* **2** The state or process of bearing fruit. **3.** Product or result of any action; effect, good or ill.

fruit·ar'i·an (frōō·târ'ĭ·ăn), *n.* One who subsists chiefly on fruit. — **fruit·ar'i·an**, *adj.* — **fruit·ar'i·an·ism**, *n.*

fruit bark beetle. = SHOT-HOLE BORER.

fruit bat. Any of numerous large bats constituting the suborder Megachiroptera (which see). They are confined to the warm parts of the Old World, and feed on fruit. Cf. FLYING FOX.

Fruit Bat (*Rousettus collaris*).

fruit blight. Any blighting of fruit; specif., fire blight.

fruit, *or* **fruit'ing, bod'y.** *Bot.* **a** Any organ specialized for producing spores, as an apothecium, the sporophore of mushrooms, mosses, liverworts, etc.; — called also *spore fruit.* **b** A zygote.

fruit bud. *Hort.* A bud that produces flowers and fruit instead of foliage leaves; also, a bud producing both leaves and flowers, as in the apple.

fruit'cake' (frōōt'kāk'), *n.* A rich cake usually containing raisins, citron, and currants, and often highly spiced.

fruit chafer. Any of various beetles, especially of the genera *Allorhina* and *Euphoria* (family Scarabaeidae), that eat ripe fruit.

fruit crow. Any of certain South American birds of the family Cotingidae which constitute a subfamily, *Gymnoderinae.* The umbrella bird and campanero are examples

COMMON BUTTERFLIES AND MOTHS

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Representative Trees

pre·ca′va (prē·kā′vȧ), *n.* [NL.] The superior or anterior vena cava. See VENA CAVA. — **pre·ca′val** (-văl), *adj.*

pre·ca′val si′nus (-văl). *Embryol.* A duct of Cuvier. See CARDINAL SINUS.

pre·ced′a·ble (prē·sēd′ȧ·b'l), *adj.* That can be preceded.

pre′ce·da′ne·ous (prē′sē·dā′nē·ŭs), *adj.* Preceding. *Obs.*

pre·cede′ (prē·sēd′; 66), *v.;* -CED′ED (-sēd′ĕd; -ĭd; 119); -CED′ING (-sēd′ĭng). [F. *précéder*, fr. L. *praecedere, praecessum*, fr. *prae* before + *cedere* to go, be in motion. See PRE-; CEDE.] *Transitive:* **1.** To go before in quality or degree; to exceed; surpass. *Obs.*

2. To go before in rank, dignity, importance, or the like; take precedence of; — esp. of diplomatic or official ranks.

3. To be, go, or come before in arrangement or sequence; to be, go, or move before or in front of.

4. To go before in order of time; to be earlier than; to occur first with relation to anything.

5. To cause to be preceded; to preface; to introduce; — used with *by* or *with* before the instrumental object.

It is usual to *precede* hostilities by a public declaration. *Kent.*

6. *Astron.* Of a star, to rise earlier than and move in front of (another star) in the apparent rotation of the heavens.

—, *Intrans.:* To go or come before; have precedence.

pre·ced′ence (prē·sēd′ĕns), *n.* [See PRECEDENT, *adj.*] **1.** = PRECEDENT, *n.* in any sense. *Obs.*

2. Act or state of preceding, or going before, in order of time; priority; as, one event has *precedence* of another; also, state or quality of being more important or valuable than; as, the thoroughbred takes *precedence* of the mongrel.

3. Act or state of going or being before in rank or dignity, or the place of honor; right to a more honorable place; superior rank; specif., ceremonial priority or order; as, barons have *precedence* of commoners. Hence, also, the order observed by persons of different rank on ceremonial occasions; as, the rules of *precedence*.

He (Henry James) accepts etiquettes, *precedences*, claims. *H. G. Wells.*

☞ *Precedence* is regarded as important at social functions in military, naval, political, diplomatic, and some ecclesiastical circles. Though based on the same general principles, actual precedence varies greatly from country to country. On occasions of ceremony in European capitals, everyone is assigned to his or her relative rank with the official sanction of the government. In the United States, however, an established code of precedence exists only by custom and tradition; it has varied slightly from time to time, no final authority has been published, and the relative ranks of certain officials are still in dispute.[1]

I. THE UNITED STATES. Among officials holding the same or equal rank, precedence is with few exceptions determined by length of service, but diplomats below the rank of chargé d'affaires take precedence according to the rank of their mission, which is determined by the length of service of its head. A change of an ambassador or minister will alter the positions of the entire personnel of his embassy or legation, except that among military and naval officers of all nationalities, military and naval rank always takes precedence above official post. Members of the executive departments holding equivalent positions take precedence according to the age of the departments in which they serve, the order being as follows: State, Treasury, War, Justice, Post Office, Navy, Interior, Agriculture, Commerce, and Labor. Governors of States, when more than one is present, take precedence by States, that is, according to the political age of the States they represent, or in the case of the thirteen original States, according to the population represented. Senators and State representatives take precedence by length of service, but between those sworn in on the same date, precedence is determined by States. Between American and foreign officials of equal or disputed rank, the rule of courtesy to the stranger requires the giving of precedence to the foreign official.

The order of precedence now customary for high officials in Washington society is approximately as follows: President of the United States; Vice-President;[2] ex-Presidents of the United States; ambassadors; Chief Justice of the Supreme Court;[1] Speaker of the House of Representatives; Associate Justices of the Supreme Court;[1] Secretary of State;[3] foreign ministers;[1, 3] Secretary of the Treasury; Secretary of War; Attorney General; Postmaster General; Secretary of the Navy; Secretary of the Interior; Secretary of Agriculture; Secretary of Commerce; Secretary of Labor; President pro tempore of the Senate; senators; members of the House of Representatives;[1] Chief of Staff of the Army, when he is a full general or a lieutenant general; Chief of Operations of the Navy; governors of States; chargés d'affaires; Solicitor General; Undersecretary of State; Undersecretary of the Treasury; Governor and Vice-Governor of Federal Reserve System; assistant secretaries[1] in order of precedence of their departments, and within each department in order of service, except that one acting as representative of an absent department head is given precedence above all others of his rank; lieutenant governors of States, presidents of State senates, and speakers of State assemblies, ranked by length of service; State justices, mayors, and State senators, by length of service; major generals, rear admirals (upper half of list in rank), and major general commandants of the Marine Corps; counselors; military and naval attachés (if below the rank of general or admiral); assemblymen; first foreign secretaries; brigadier generals; rear admirals (lower half of list in rank); Interstate Commerce Commission; Secretary of Smithsonian Institution and Director of Pan American Union (relative rank reversed by some authorities); second and third foreign secretaries.

In the United States, a regular army officer always precedes a naval officer of equal rank, and the one whose rank was received earlier (even if now retired) precedes the one promoted more recently; but reserve officers who have served only during a war do not customarily claim precedence on account of their former military or naval rank.

The corresponding ranks in Army and Navy in order of precedence are as follows:

Army	*Navy*
General (Full)	Admiral (Full)
Lieutenant General	Vice-Admiral
Major General	Rear Admiral, upper half of list in rank.
Brigadier General	Rear Admiral, lower half of list in rank.
Colonel	Captain
Lieutenant Colonel	Commander
Major	Lieutenant Commander
Captain	Lieutenant
1st Lieutenant	Lieutenant, Junior Grade
2d Lieutenant	Ensign

A wife or a widow is always accorded the rank of her husband, but the sisters, daughters, daughters-in-law, and other members of the families of an official take no precedence. Even though they may act as hostesses for him, they hold no such rank except in his house. Unmarried daughters of the President, however, receive a courtesy rank ahead of the wives of minor officials, and the sister of one Vice-President has claimed the rank customarily accorded to a Vice-President's wife. Women members of Congress rank below the wives of congressmen of longer service, and above the wives of those more recently elected.

In Washington official society, first calls are ordinarily made by persons of lower rank upon persons of higher rank, but there are many traditional exceptions. For example, cabinet members and their wives call first upon members of the Senate, though the former take precedence at dinners and other social functions. At dinners, the ranking man sits at the right of the hostess, the second ranking man at her left, the third at the right of the lady at the right of the host, the fourth at the left of the lady at the left of the host, and so on. The ranking ladies are similarly arranged, beginning at the right of the host. In going out to dinner, the host ordinarily leads the way with the wife of the ranking guest, or, if his wife is not present, with the ranking lady, and the others usually follow in the order of precedence of the men, except that the hostess comes last of all with the man of highest rank; but on those few occasions when the President dines out, the hostess leads with the President, followed immediately by the host with the President's wife. When the ranking guest is the Vice-President, the hostess sometimes leads with him, his wife coming immediately after with the host, and the other guests following.

In the United States, hereditary titles convey no right to precedence, but clergymen are usually accorded precedence above most laymen, though there is no infallible rule for determining the exact relative rank of clergymen and high government officials.

II. ENGLAND. In English society, hereditary rank, ecclesiastical rank, official position, and personal honors and distinctions all play a part in determining precedence; and the weight attached to each has varied slightly from time to time, since it is affected not only by custom but also by royal decrees, statutes, and treaties. When men have two claims to precedence they are ranked according to the higher, and the same is true of women, with certain exceptions noted below. Foreign titles of nobility borne by British subjects afford their holders no precedence whatever in Great Britain. Certain offices and certain honorary societies entitle their holders to precedence in Scotland but not in England.

a *Men.* In England the order of precedence for men is as follows: the Sovereign, the Prince of Wales, younger sons of the Sovereign; grandsons, brothers, and uncles of the Sovereign in this order; the Sovereign's nephews, according to the seniority of their fathers; foreign ambassadors; Archbishop of Canterbury; Lord Chancellor of Great Britain; Archbishop of York; Prime Minister; Lord President of the Council; Speaker of the House of Commons; Lord Privy Seal (if of baronial rank); then the following state officers if dukes (1) Lord Great Chamberlain of England (when in actual performance of duty), (2) Lord High Constable (when existing); (3) Earl Marshal; (4) Lord High Admiral (when existing); (5) Lord Steward of the Household; (6) Lord Chamberlain of the Household; (7) Master of the Horse; other dukes;[4] eldest sons of dukes of the blood royal;[5] foreign ministers and envoys; the above state officers (Lord Great Chamberlain, etc.), if marquesses; other marquesses;[4] dukes' eldest sons;[5] the above state officers, if earls; other earls;[4] younger sons of dukes of the blood royal; marquesses' eldest sons;[5] dukes' younger sons; the above state officers, if viscounts;[4] earls' eldest sons;[5] marquesses' younger sons; bishops of London, Durham, and Winchester in this order; all other English bishops, in order of consecration; the above state officers (Lord Great Chamberlain, etc.), if barons; Secretaries of State, if barons; other barons;[4] Lords Commissioners of the Great Seal (when existing); Treasurer of the Household; Comptroller of the Household; Vice-Chamberlain of the Household; Secretaries of State below the rank of baron; High Commissioners; viscounts' eldest sons;[5] earls' younger sons; barons' eldest sons;[5] Knights of the Garter, if commoners; Privy Councilors; Chancellor of the Exchequer; Chancellor of the Duchy of Lancaster; Lord Chief Justice of England; Master of the Rolls; President of the Probate, Divorce, and Admiralty Division; the Lords Justices of Appeal (placed higher by some authorities); Judges of the High Court of Justice in order of appointment; viscounts' younger sons; barons' younger sons; sons of life peers; baronets of either kingdom concurrently, according to the dates of their patents; Knights Grand Cross of the Bath; Knights Grand Commanders of the Star of India; Knights Grand Cross of St. Michael and St. George; Knights Grand Commanders of the Order of the Indian Empire; Knights Grand Cross of the Royal Victorian Order; Knights Grand Cross of the British Empire Order; Knights Commanders of the above orders in the same sequence; Knights Bachelor; judges of the county courts of England and Wales and of the City of London Court, in order of appointment; sergeants-at-law; masters in lunacy; Companions of the Bath and of other orders in the sequence listed above; Companions of the Distinguished Service Order; Members (4th Class) of the Royal Victorian Order; Officers of the Order of the British Empire; Companions of the Imperial Service Order; eldest sons of younger sons of peers; baronets' eldest sons;[5] eldest sons of Knights of the Garter; eldest sons of other knights;[5] Members (5th Class) of the Royal Victorian Order; Members of the Order of the British Empire; baronets' younger sons; younger sons of knights;[5] esquires; gentlemen.[5]

b *Women.* Among the hereditary nobility, women take the same rank as their husbands or as their eldest brothers. Daughters of peers rank immediately after the wives of their eldest brothers and before the younger brothers' wives. The daughter of a peer marrying another peer of lower degree takes the same rank as her husband, but one marrying a commoner retains her title and rank as the daughter of her father. Thus when the daughter of a duke has married a commoner she will take precedence above her sister who has married a baron. If, however, the widow of a peer or knight remarries, custom allows her to retain her former title and position by courtesy; and the widow of a baronet enjoys her precedence for life by right. If the daughter of a peer marries the son of a peer she takes precedence either as the daughter of her father or as the wife of her husband, whichever happens to give her the higher position, regardless of the title by which she may be addressed. The children of a living peer or baronet have precedence above those of his predecessor; but a dowager, while a widow, takes precedence above the wife of her husband's successor. In Great Britain, official rank on the husband's part does not, as a rule, give precedence to the wife, but there are a few exceptions, as in the case of the lady mayoress.

The order of precedence of women in England is as follows: the Queen; the Queen Mother; the Princess of Wales; the Sovereign's daughters; wives of the Sovereign's younger sons; the Sovereign's granddaughters; wives of the Sovereign's grandsons; the Sovereign's sisters; wives of the Sovereign's brothers; the Sovereign's aunts; wives of the Sovereign's uncles; the Sovereign's nieces; wives of the Sovereign's nephews; duchesses;[4] wives of the eldest sons of dukes of the blood royal; marchionesses;[4] wives of the eldest sons of dukes; daughters of dukes; countesses;[4] wives of younger sons of dukes of the blood royal; wives of eldest sons of marquesses; daughters of marquesses; wives of younger sons of dukes; viscountesses;[4] wives of eldest sons of earls; daughters of earls; wives of younger sons of marquesses; baronesses;[4] wives of Lords of Appeal in Ordinary; wives of eldest sons of viscounts; daughters of viscounts; wives of younger sons of earls; wives of eldest sons of barons; daughters of barons; maids of honor to the Queen Regnant, Queen Consort, or Queen Dowager; wives of Knights of the Garter; wives of younger sons of viscounts; wives of younger sons of barons; daughters of life peers; wives of the sons of life peers; wives of baronets; Dames Grand Cross of the Order of the British Empire; wives of Knights Grand Cross and of Knights Grand Commanders in the same sequence as their husbands; Dames Commanders of the Order of the British Empire; wives of Knights Commanders and Knights Bachelor in the same sequence as their husbands; Commanders of the Order of the British Empire; wives of Companions of the Bath, Star of India, St. Michael and St. George, and Indian Empire in this sequence; wives of Commanders of the Royal Victorian Order and of the Order of the British Empire; wives of Companions of the Distinguished Service Order; wives of Sergeants-at-Law; Officers of the Order of the British Empire; wives of Members (4th Class) of the Royal Victorian Order; wives of Officers of the Order of the British Empire; Companions of the Imperial Service Order; wives of Companions of the Imperial Service Order; wives of the eldest sons of the younger sons of peers; daughters of the younger sons of peers; wives of the eldest sons of baronets; daughters of baronets; wives of the eldest sons of Knights of the Garter; wives of the eldest sons of Knights Bachelor; daughters of knights; Members of the Order of the British Empire; wives of Members (5th Class) of the Royal Victorian Order; wives of Members of the Order of the British Empire; wives of the younger sons of the younger sons of peers; wives of the younger sons of baronets; wives of the younger sons of knights; wives of esquires; wives of gentlemen.[5]

III. SCOTLAND. **a** *Men.* In Scotland, the Lord High Commissioner to the General Assembly of the Church of Scotland (during the sitting of this assembly) precedes every man except the King and is followed by all other members of the royal family in the same order as in England. After the royal family, precedence is given to Lords Lieutenants of counties, Lords Provosts of cities, and Sheriffs Principal in this order, during their term of office and within the localities of their own jurisdiction; after them come the Lord Chancellor of Great Britain; the Moderator of the General Assembly of the Church of Scotland (during office); the Prime Minister; the Keeper of the Great Seal of Scotland (Secretary for Scotland), if a peer; Keeper of the Privy Seal (if a peer); Hereditary High Constable of Scotland; Hereditary Master of the Household in Scotland; dukes;[4] eldest sons of dukes of the blood royal;[5] marquesses;[4] eldest sons of dukes;[5] earls;[4] younger sons of dukes of the blood royal; eldest sons of marquesses;[5] younger sons of dukes; Keeper of the Great Seal, if not a peer; Lord Justice General; Lord Clerk Register; Lord Advocate; Lord Justice Clerk; viscounts;[4] eldest sons of earls; younger sons of marquesses; barons;[4] eldest sons of viscounts;[5] younger sons of earls; eldest sons of barons;[5] knights of the Garter; Privy Councilors; Senators of the College of Justice (Lords of Session), including Chairman of the Scottish Land Court; younger sons of viscounts; younger sons of barons; Sons of Law Life Peers (Lords of Appeal in Ordinary); baronets; Knights of the Thistle; Knights of St. Patrick; Knights Grand Cross, Knights Grand Commanders, and Knights Commanders of other orders (Bath, Star of India, etc.) ranked as in England; Solicitor General for Scotland; Lyon King-of-Arms; Sheriffs Principal (when not within their own county); Knights Bachelor; Sheriffs Substitute; Companions of the Bath, Star of India, St. Michael and St. George, the Indian Empire, Royal Victorian Order, Order of the British Empire, and Distinguished Service Order in this sequence; Members (4th class) of the Royal Victorian Order; Officers of the Order of the British Empire; Companions of the Imperial Service Order; eldest sons of younger sons of peers; eldest sons of baronets; eldest sons of Knights of the Garter, Thistle, and St. Patrick; eldest sons of other knights; Members (5th class) of the Royal Victorian Order; Members of the Order of the British Empire; younger sons of baronets; younger sons of knights; King's Counsel; esquires; gentlemen.[5]

b *Women.* The order of precedence for women in Scotland is closely similar to that in England, because the governmental and ecclesiastical offices which complicate the order of precedence among the men do not ordinarily confer any precedence upon their wives. Four important differences between Scotland and England should, however, be noted: (1) Peers and hence peeresses of Ireland created before the Union are recognized in England but not in Scotland. (2) Knights of the Thistle and of St. Patrick and their wives and children have definite precedence assigned to them in Scotland but not in England. The wives of these knights in Scotland rank immediately after the wives of baronets, and before Dames Grand Cross of the Order of the British Empire. The wives of their eldest sons rank immediately after the wives of the eldest sons of Knights of the Garter. (3) In Scotland, wives of Senators of the College of Justice (Lords of Session), including the wife of the Chairman of the Scottish Land Court take the same rank as wives of Knights Bachelor, all taking precedence among themselves in order of their husbands' creation as knights or appointment as senators. (4) Wives of sergeants-at law hold no special precedence in Scotland.

IV. ENGLAND: local. There is no complete written code of English county or city precedence; but the Lord Lieu-

[1] The relative rank of the Chief Justice and the ambassadors, and that of foreign ministers and the justices of the Supreme Court, have been disputed. Some authorities place generals, lieutenant generals, admirals, and vice-admirals above representatives in congress, and major generals and rear admirals above all assistant secretaries except those of War and the Navy, but this method creates complications in the placing of other assistant secretaries, some of whom outrank the assistant secretaries of War and the Navy.

[2] Some authorities place the Vice-President immediately after the Chief Justice on those occasions when the President is present and the Vice-President is therefore held to be functioning merely as head of the Senate.

[3] Formerly the Secretary of State ranked below foreign ministers in American houses but above them in embassies and legations.

[4] In England peers and peeresses of the same degree take precedence as follows: England, Scotland, Great Britain (created before the union), Ireland (created before the union), Great Britain and Ireland (created since the union); and within these groupings according to the dates of their patents, the earlier ranking above the later. In Scotland the order is the same except that no special precedence is accorded to peers of Ireland created before the union.

[5] In the same order as their fathers. In Great Britain, hereditary precedence is ordinarily derived from the father, but a peeress in her own right can confer it upon her descendants.

GEMS

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Webster's New International Dictionary, *Second Edition*

A Composite Page of Business Terms

com'pa·ny (kŭm'pȧ·nĭ), *n.; pl.* -NIES (-nĭz). For construction with sing. or pl. vb., see COLLECTIVE NOUN. [OF. *compagnie*, fr. *compagne* company, fr. (assumed) VL. *compania*. See 1st & 3d COMPANION.]
3. a An association of persons for a joint purpose or performance, esp. for carrying on a commercial or industrial enterprise or business. The term *company* in its general sense includes corporation, guild, joint-stock company, and partnership, but is mostly used of the larger partnerships (specifically called ***joint-stock companies***) and trade, industrial, or commercial corporations. In British usage the term is the ordinary one for designating the historic chartered companies (as of the merchant adventurers), the trade guilds (those of London being often called ***city companies***), and the modern industrial and commercial organizations more often called *corporations* in the United States, the term *corporation* in British usage being chiefly used of corporations other than those for trade, industrial, or commercial purposes. The ordinary small business copartnership companies are more frequently designated, esp. in England, by the name *firm* or *partnership*. See PRIVATE COMPANY. **b** [*cap.*] One of the Chinese *Six Companies* (which see).
4. Those members of a partnership firm whose names do not appear in the firm name; as, John Doe and *Company*; — often abbreviated *Co.* Hence, *Colloq.*, the remaining membership of a group intimately connected with, as by leadership, or typically represented by, one or more named individuals; as, Caesar, Napoleon, and *company*.

work'men's com'pen·sa'tion act (-mĕnz). *Law.* A statute fixing the compensation (***workmen's compensation***) that workmen may recover from an employer in case of accident; specif.: **a** [*caps.*] the British act of 6 Edw. VII c. 58 (1906) giving to a workman, except in certain cases of "serious and willful misconduct," a right against his employer to a certain compensation on the mere occurrence of an accident where the common law gives the right only for negligence of the employer. **b** [*caps.*] *U. S.* Any of various State statutes fixing the compensation that a workman may recover from an employer in case of accident (and sometimes of occupational disease) arising out of the employment, giving to a workman, except when an injury is willfully self-inflicted or caused by intoxication, indemnity according to a definite schedule without regard to fault. Cf. EMPLOYER'S LIABILITY ACT.

merg'er, *n.* [Formed on the analogy of AF. or OF. infin. forms used as nouns. See MERGE, *v.*] **1.** *Law.* An absorption of one estate, or of one contract or interest, in another, or of a minor offense in a greater. At common law a merger takes place when a lesser estate and a greater one, or a higher security, obligation, or interest, and a lower one, become vested in one person in the same right without any intermediate estate, etc.; but in equity the two interests may be treated as separate so far as equitable interests demand. With reference to corporations *merger* is used to denote the vesting of the control of different corporations in a single one by the issue of stock of the controlling corporation in place of a majority of the stock of the others, and is distinguished from a *consolidation*, which in strictness implies that the consolidating companies dissolve, their property and business being transferred to a single company (cf. AMALGAMATION, 3).
2. = MERGENCE.

investment trust. An organization, frequently a corporation, for the purpose of investing moneys subscribed or loaned thereto, and distributing the net return to stockholders or beneficiaries. Investment trusts are: (1) ***rigid trust***, or ***fixed trust***, a trust in which investment is confined to a restricted list of securities; and (2) ***flexible trust***, or ***management trust***, a trust in which the selection of securities for investment is left to the officers and directors of the trust.

syn'di·cal·ism (-ĭz'm), *n.* The theory, plan, or practice, of trade-union action (originally as advocated and practiced by the French Confédération Générale du Travail) which aims by the general strike and direct action to establish control by organizations (*syndicats*) of workers over the means and processes of production. — **syn'di·cal·ist** (-ĭst), *adj. & n.* — **syn'di·cal·is'tic** (-ĭs'tĭk), *adj.*

trade'-un'ion (trād'ūn'yŭn; trād'ūn'yŭn), *or* **trades'-un'ion** (trādz'-; trādz'-), *n.; pl.* TRADE-UNIONS or TRADES-UNIONS. **1.** A voluntary association of working people organized to further or maintain their rights, privileges, and interests with respect to wages, hours and conditions of labor, efficiency, education, mutual insurance, customs, etc.
2. In a general sense, a voluntary combination for mutual aid of any persons engaged in trade, as of employers, or employers and workmen.

ton'nage (tŭn'ĭj), *n.* [From TON a measure.] **1.** Often **tun'nage** (tŭn'-). A duty formerly levied on every tun of wine imported and exported. *Hist.*
2. The rental of a ship at so much a ton per week or month. *Obs.*
3. A duty or impost on vessels, based on tons carried; also, a duty, toll, or rate on goods per ton transported on canals. See 1st TON, 2.
4. Ships collectively, usually in terms of the total number of tons registered or carried or of the sum of their carrying capacity; as, the *tonnage* built in American shipyards is relatively small; the *tonnage* devoted to Oriental trade.
5. The cubical content or burden of a vessel, or vessels, in tons; or, the amount of weight which one or several vessels may carry. A merchant vessel's tonnage for purposes of registration is her entire internal cubical capacity in tons of one hundred cubic feet each as ascertained in a certain manner prescribed by law (in United States by R. S. 4153, in Great Britain by Merchant Shipping Act, 1894) in different countries. It is of three kinds. ***Gross tonnage*** is such capacity of a vessel without deduction. ***Underdeck tonnage*** is the gross tonnage less the spaces above the second deck from the keel. ***Register***, or ***net***, ***tonnage*** is the gross tonnage less certain deductions for space occupied by engines, crew's quarters, etc., giving a rough measure of the capacity of the ship for cargo or passengers. The tonnage of war vessels is their ***displacement tonnage***, or weight of the water displaced by them.
6. Total weight in tons; aggregate of tons shipped, carried, mined, etc.; as, this coal mine's daily *tonnage* is large; a railroad with the year's record for *tonnage*.
7. Capacity, size, or weight, as of a mind or body; — usually humorous.

Business Terms

Every business man should fully understand the meaning of such terms as *company, firm, trade-mark, cost accounting, merger*, and *workmen's compensation act.*

Every investor requires information concerning a *debenture*, and an *investment trust.*

Every shipper uses such terms as *tonnage*, and *common carrier.*

This new Dictionary supplies a wealth of needed information to the man in business. It should be as conveniently accessible in every business office as the telephone book.

direct tax. *Econ.* As generally defined, a tax exacted directly from the person on whom the ultimate burden of the tax is expected to fall, as distinguished from an *indirect tax*, or one exacted from a person other than the one on whom the ultimate burden of the tax is expected to fall. Thus, a poll tax is a *direct tax*; a customs duty is an *indirect tax*; as defined by Continental writers and some others, a tax on persons or property, as distinguished from an *indirect tax*, or one levied on acts. In either case, *direct taxes* include property, income, inheritance taxes, poll taxes, and franchise taxes. Under *indirect taxes*, in either case, are included excise and customs duties.

public service. The business of supplying some commodity (as gas, electricity, power, water) to any or all members of a community, or of providing some service (as transportation, as by railroad or bus or by pipe line; communication, as by telegraph or telephone; elevating grain; maintaining stockyards) where exercise of the calling involves some legal privilege or a natural or virtual monopoly.

public utility. Called also *utility*. **1.** A business organization performing some public service (see PUBLIC SERVICE) and hence subject to special governmental regulation, such as fixing of rates, requirement of incidental facilities, etc.
2. *Stock Exchange.* Usually *pl.* The shares of public-utility companies; as, the *public utilities*, or *utilities*, were strong in the market today.
— **pub'lic-u·til'i·ty** (66), *adj.*

de·ben'ture (dē·bĕn'tūr), *n.* [L. *debentur* (they) are due, fr. *debere* to owe. These certificates are supposed to have begun with the words *Debentur mihi*. See DEBT.] **A** writing or certificate signed by a public officer as evidence of a debt or of a right to demand or receive a sum of money; any writing or voucher acknowledging a debt; specif.: **a** A voucher from a government official certifying a sum of money to be due to a person, as for stores supplied to the ordnance department, or formerly, in England, for arrears of pay to a soldier or sailor. **b** A customhouse certificate entitling an exporter of imported goods to a drawback of duties paid on their importation, or of home produce to a sum as bounty granted. **c** Any of various instruments issued by corporations as evidences of debt. Such instruments (often called ***debenture bonds***) are generally though not necessarily, under seal, and are usually secured by a mortgage or other charge upon property; they may be registered or unregistered. A debenture secured by a mortgage on specific property is called a ***mortgage debenture***; one secured by a floating charge (which see), a ***floating debenture***; one not secured by any charge, a ***naked debenture.*** In general the term debenture in British usage designates any security issued by companies other than their shares, including, therefore, what are in the United States commonly called *bonds*. When used in the United States *debenture* generally designates an instrument secured by a floating charge junior to other charges secured by fixed mortgages, or, specif., one of a series of securities secured by a group of securities held in trust for the benefit of the debenture holders. In some cases the debenture is no more than an unsecured promissory note of the corporation bearing a fixed rate of interest.

cost accounting. *Accounting.* Any system of accounts which reveals the cost elements of material, labor, and overhead incident to the production and distribution of a commodity or the rendering of a service; also, the keeping of such accounts. — **cost accountant.**

book'keep'ing, *n.* Art or practice of keeping a systematic record of business transactions, to show their relations and the state of the business; art of keeping accounts.
Syn. — See ACCOUNTING.

vertical combination. Also **vertical amalgamation, consolidation, merger,** *or* **trust.** *Com.* A combination, amalgamation, etc., of concerns engaged in different stages of manufacture or distribution of a product in its conversion from raw to finished material, as a consolidation of an iron ore mining company, an ore transport company, an iron and steel manufacturing concern, and a selling agency. Cf. HORIZONTAL COMBINATION; INTEGRATED TRUST.

trade'-mark', trade'mark' (trād'märk'), *n.* A word, letter, device, or symbol, or some combination of these, used in connection with merchandise and either inherently or by association pointing distinctly to the origin or ownership of the article to which it is applied. A trade-mark is a name or symbol by which goods may be distinguished as coming from a certain, although not necessarily known, source. In countries where the common law prevails (the United States, England, and the English colonies where English law is applied) trade-mark rights result from the use of the mark in trade, so that, by association with goods, the mark becomes a means of identification and hence is a symbol of *good will* (which see). The right is acquired by use and in most cases priority of use is the critical question in determining ownership. Registration does not create the right but gives procedural advantages. In countries where the law is in the form of codes, as in Latin America, the right is created by registration, and the first to register becomes the owner. Infringement of a trade-mark is such an appropriation or imitation as is likely to deceive ordinary or unwary buyers into the acceptance of the goods of one trader as those of another. This is the essence of the wrong, and the legal wrong known as *trade-mark infringement* is rapidly being merged into the broader wrong of *unfair competition* (which see).

common carrier. *Law.* **a** One who undertakes the office of carrying goods or persons for hire and for all persons indifferently. At the common law such a carrier is liable for all losses and injuries to the goods except those which happen in consequence of the act of God, or of the enemies of the country, or of the owner of the property himself. **b** By analogy, any public utility or public service company. **c** *U. S.* Under the Interstate Commerce Act and Railway Labor Act, any carrier by railroad, including all transportation facilities and floating equipment used in connection with the railroad.

pro·tec'tion (prō·tĕk'shŭn), *n.* [ME. *proteccioun*, fr. OF. *protection*, fr. LL. *protectio*.] **1.** Act of protecting; state or fact of being protected; as, the *protection* of the weak; to provide *protection* from harm.
2. A protecting person or thing; as, the Lord is our *protection;* dark glasses are a *protection* from the sun.
3. A writing that protects, or secures from molestation or arrest; a pass; a safe-conduct; a passport.
4. Government, oversight, or support of a protector or patron; as, small nations under British *protection*.
5. *Econ.* The freeing of the producers of a country from foreign competition in their home market by the imposition of such duties on goods of foreign origin as will restrict or prevent their importation; also, the theory, policy, or system (called ***protective system***) favoring or practicing the imposition of such duties; — opposed to *free trade* (cf. AMERICAN SYSTEM). The term *protection* is sometimes used to include the system of encouragement of home industries by the payment of bounties, and, in a still broader and more recent use, to include all the measures by which a state or country endeavors to secure the best possible development of its own resources. A protective system tends to effect its purpose by a high tax on small imports framed for protection with incidental revenue, rather than by a low tax on large imports that may be framed as a tariff for revenue with incidental protection, or by a system of reciprocity taxes (see RECIPROCITY).
6. *Politics.* Immunity from prosecution obtained by certain criminal classes, as bootleggers and proprietors of gambling houses, through bribes to officials or political bosses.
Syn. — Preservation, guard, security, safety.

promissory note. *Law.* A written promise to pay on demand or at a fixed or determined future time a certain sum of money to, or to the order of, a specified person or to bearer.

firm, *n.* [Sp. & It. *firma*, fr. L. *firmare* to confirm, fr. *firmus* firm. See FIRM, *adj.*] **1.** Signature; esp. official signature of state papers.
2. The name, title, or style under which a company transacts business; the firm name; hence, a partnership of two or more persons; a commercial house; as, the *firm* of Hope & Co. Under English and American law a *firm* is not recognized as a legal person distinct from the members composing it; but in Scots law and French law the firm is a legal person distinct from its members, though the individual partners may be charged on a decree or diligence directed against the firm. Cf. COMPANY, 3.
Syn. — Company, house, partnership.

bank'rupt (băngk'rŭpt), *n.* [After L. *rupta*, fr. It. and F.; F. *banqueroute*, fr. It. *banca rotta*, lit., broken bank, fr. *banca* bank + *rotta* broken, fr. L. *rupta*, fem. past part. of *rumpere* to break. See 5th BANK; RUPTURE, *n.*] **1.** Bankruptcy. *Obs.*
2. Any person whose property becomes liable to administration under the bankrupt laws. Under the first bankrupt laws (which were directed against fraudulent traders) the bankrupt was a criminal; but, with the amelioration and extension of these laws, the bankrupt is any person who is insolvent or has done any of the acts (called *acts of bankruptcy*) which the law provides shall entitle his creditors to have his estate administered for their benefit, such as the making of a general assignment, the making of a transfer of his property actually or constructively fraudulent, etc. In England the bankruptcy laws began with the act of 34 & 35 Henry VIII, c. 4; and the principal act now in force is 4 & 5 Geo. V, c. 59 (Aug. 10, 1914). In the United States national bankruptcy acts were passed in 1800, 1841, 1867, and 1898, of which only the last with its amendments is now in force. Specific senses of *bankrupt* referring to these laws are (defs. 3 to 6):
3. A trader who secretes himself, or does certain other acts tending to defraud his creditors. *Obs. exc. Hist. Blackstone.*
4. Loosely, a trader or any debtor who became a refugee to escape his creditors or the laws against debtors. *Obs.*
5. A trader or any person who becomes insolvent.
6. Technically, a person who has on the petition of his creditors or on his own petition been judicially declared to be subject to have his estate administered under the bankrupt laws for the benefit of his creditors. In England, until the year 1861, none but a "trader" could be made a bankrupt; a nontrader failing to meet his liabilities being an *insolvent*. But this distinction was abolished by the Bankruptcy Act of 1861. In the United States in the national acts of 1841, 1867, and 1898, *bankrupt* was applied to others besides those engaged in trade. Cf. INSOLVENT.
7. One who is destitute of or wholly wanting in (something); as, a mental *bankrupt*; a moral *bankrupt*.

Mer·ce′des (mûr·sē′dēz; *Sp.* mār·thā′thās; 112), *n.* [Sp. fr. *María de las Mercedes*, attribute of the Virgin Mary, fr. *merced* grace, favor. See MERCY.] Fem. proper name.

mer·ce′ment (mûrs′mĕnt), *n.* Amercement; also, doom. *Obs.*

mer′ce·nar′i·an (mûr′sē·nâr′ĭ·ăn), *n.* A mercenary. *Obs.*

mer′ce·nar′y (mûr′sē·nĕr′ĭ *or, esp. Brit.*, -nĕr·ĭ), *adj.* [L. *mercenarius*, fr. *merces* wages, reward. See MERCY.] **1.** Acting merely for reward; serving, working, or done solely for pay; hireling; venal; moved by considerations of pay or profit; sordid.
2. Serving for pay or wages; hired; — now only of soldiers serving in an army not of their own country.
3. Salaried; also, conducted, engaged in, or run for, the purpose of making money. *Obs.*
Syn. — MERCENARY, HIRELING, VENAL. MERCENARY in the sense of *hired* applies (without necessary opprobrium) only to soldiers; as, *mercenary* troops. That is *mercenary*, in ordinary usage, which is actuated by (usually sordid or self-seeking) considerations of profit or reward; as, "She bad . . . nothing sordid or *mercenary*; in fact, she never thought of money" (*G Eliot*). HIRELING applies to that which is (esp.) servilely sold, VENAL, to that which is (esp.) basely purchasable, for a dishonorable consideration; both words are terms of strong opprobrium; as, "prostituted muse and *hireling* bard" (*Byron*); "bartering his *venal* wit for sums of gold" (*Dryden*). Cf. VENDIBLE.
— **mer′ce·nar′i·ly**, *adv.* — **mer′ce·nar′i·ness**, *n.*

mer′ce·nar′y, *n.*; *pl.* -IES (-ĭz). [L. *mercenarius*.] **1.** One who works solely for pay. *Now Rare.*
2. One who is hired or paid for bis work; a hireling; — now only a soldier hired into foreign service.

mer′cer (mûr′sẽr), *n.* [OF. *mercier*, fr. L. *merx*, *mercis*, wares. See MERCHANT.] A dealer in textile fabrics. *Eng.*

mer′cer·ess (-ĕs; -ĭs; 119), *n.* A female mercer. *Rare.*

mer′cer·ize (-īz), *v. t.*; -IZED (-īzd); -IZ′ING (-īz′ĭng). [After John *Mercer* (1791–1866), Eng. calico printer.] To treat (cotton fiber or fabrics) with a solution of caustic alkali. Such treatment causes the fiber to become stronger and more receptive of dyes. If the yarn or cloth is kept under tension during the process, it assumes a silky luster. — **mer′cer·i·za′tion** (-ĭ·zā′shŭn; -ī·zā′shŭn), *n.* — **mer′cer·iz′er** (mûr′sẽr·īz′ẽr), *n.*

Mer′cers·burg the·ol′o·gy (mûr′sẽrz·bûrg). A system emanating from the theological seminary of the German Reformed Church at Mercersburg, Pa., esp. from Prof. John Williamson Nevin (1803–86). It advocated a Christocentric theology, took the Calvinist view of the Lord's Supper, and emphasized the liturgical element in worship.

mer′cer·y (mûr′sẽr·ĭ), *n.*; *pl.* -IES (-ĭz). [OF. *mercerie*.] Mercers' goods or wares; also, a mercer's shop.
— *the Mercery.* *Obs.* **a** The Mercers' Company, the first in order of precedence of the twelve great London City Livery Companies. **b** The place or street where the mercers' trade is carried on. **c** The mercers' trade.

mer′chan·dis′a·ble (mûr′chăn·dīz′ȧ·b′l), *adj.* Merchantable.

mer′chan·dise (mûr′chăn·dīz), *n.* [ME. *marchandise*, fr. OF. *marchandise*.] **1.** The objects of commerce; whatever is usually bought or sold in trade; wares; goods. Abbr. *mdse.*
2. Act or business of trading; trade; traffic. *Archaic.*
3. A kind of merchandise or goods; a commodity. *Obs.*

mer′chan·dise, *v. i.*; -DISED (-dīzd); -DIS′ING (-dīz′ĭng). To trade; to carry on commerce; to traffic. — *v. t.* To make merchandise of; to buy and sell; to trade or traffic in. "Love is *merchandised*." *Shak.*

mer′chan·dis′er (-dīz′ẽr), *n.* A trader; a merchant.

mer′chan·drise (-drēz), *n.* Merchandise. *Obs. Scot.*

mer′chand·ry (mûr′chăn·drĭ), *n.* [See MERCHANT.] Trade; commerce. *Archaic.*

mer′chand·y (-dĭ), *n.* [OF. *marchandie*, *marcheandie*.] Merchandy; also, merchandise. *Obs.*

mer′chant (mûr′chănt), *n.* [ME. *marchant*, fr. OF. *marcheant*, *marchant* (F. *marchand*), fr. (assumed) VL. *mercatans*, *-antis*, pres. part. of *mercatare* to negotiate, fr. L. *mercari* to traffic, fr. *merx*, *mercis*, wares. See MARKET; cf. COMMERCE, MERCANTILE.] **1.** Orig., any one making a business of buying and selling commodities; a trafficker; a trader; now esp., one who traffics on a large scale, esp. with foreign countries.
Others, like *merchants*, venture trade abroad. *Shak.*
2. **a** One who carries on a retail business; a storekeeper or shopkeeper. **b** *Scot.* A buyer; a customer.
3. A fellow; chap; "customer." *Now Slang, Eng.*
4. *Obs.* **a** A trading vessel; a merchantman. **b** A supercargo.

mer′chant, *adj.* **1.** Of, pert. to, or used in, trade; of or pert. to the mercantile marine; commercial; composed of merchants; as, law *merchant*; a *merchant* guild.
2. Being, or of the character of, a merchant; as, a *merchant* king.
3. Designating ordinary shapes and sizes of wrought iron and steel bars not made according to specification, or the rolls or mill by which they are formed, etc. Hence: **merchant bar, merchant iron, merchant mill.**

mer′chant, *v. i.* & *t.* [ME. *marchaunden*, fr. OF. *marcheander*, *marchander*.] To be a merchant, or deal in (merchandise); also, to sell (merchandise) in a market. *Rare.*

mer′chant·a·ble (-chăn·tȧ·b′l), *adj.* **1.** Fit for market; such as is usually sold in market, or such as will bring the ordinary price; as, *merchantable* wheat; sometimes, designating particular kind or class; as: **a** The highest of the three grades of Newfoundland codfish. **b** Boards or other lumber inferior to clear stuff, but fit for use.
2. Of or pert. to trade or commerce; commercial. *Obs.*
— **mer′chant·a·ble·ness**, *n.*

merchant adventurer; *pl.* MERCHANTS ADVENTURERS or MERCHANT ADVENTURERS. **1.** A merchant engaged in foreign commerce by the establishment of trading stations in, and the sending of ventures to, other countries; esp., a member of an association or company of such. *Obs.*
2. [*cap.*] *Eng. Hist.* Specif., *pl.*, a famous chartered regulated trading company which operated from as early as the 14th century down to near the end of the 16th century, and whose principal business was the export of cloth, of which trade it had a monopoly. Eventually its principal depot was established at Hamburg, and it became known as the *Hamburg Company*. In 1551 a company or association of Merchants Adventurers was incorporated for the discovery of unknown lands, Sebastian Cabot being named governor for life.

merchant banker. = ACCEPTANCE HOUSE. *Eng.*

mer′chant·er (mûr′chăn·tẽr), **mer′chant·eer′** (-chăn-tēr′), *n.* A merchant ship; a merchantman. *Now Rare.*

merchant flag. The flag flown by the merchant vessels of a country. It is sometimes identical with the national ensign. Cf. RED ENSIGN.

mer′chant-like′ (mûr′chănt·līk′), *adj.* & *adv.* Like or proper to a merchant; also, *Obs.*, mercantile.

mer′chant·ly (-lĭ), *adj.* Merchantlike.

mer′chant·man (-măn), *n.*; *pl.* -MEN (-mĕn). **1.** A merchant. *Archaic.* *Matt.* xiii. 45.
2. A trading vessel; a ship used in carrying goods or passengers, as distinguished from a war vessel, a yacht, etc.

merchant marine. *Naut.* **a** The commercial vessels of a nation, privately or publicly owned, as distinct from the Navy. **b** The personnel of this service.

merchant of the staple. A member of the regulated company of merchants who traded, esp. in wool, at the staple. See 3d STAPLE, 1; REGULATED COMPANY. Cf. MERCHANT ADVENTURER.

Merchant of Venice, The. A play by Shakespeare, performed 1598, pub. 1600. See SHYLOCK; PORTIA; ANTONIO.

merchant prince. A leader in merchandising business; hence, popularly, any merchant having princely wealth.

mer′chant·ry (mûr′chănt·rĭ), *n.* **a** Mercantile business; trade. **b** The body of merchants taken collectively.

merchant service. Mercantile marine; maritime commerce.

mer′chant·ship (mûr′chănt·shĭp), *n.* The character, position, or function of a merchant.

merchant ship. A ship employed in commerce.

mer′chant's mark (mûr′chănts). A mark such as was formerly used by merchant traders or corporations (not entitled to coats of arms) on their goods to distinguish them from the goods of others. It was the forerunner of the modern *trade-mark*. *Hist.*

merchant tailor *or*, *Archaic*, **taylor.** **1.** A tailor who keeps and sells materials for the garments which he makes *The Company of the Merchant Taylors* is one of the great London City Livery Companies.
2. [In the form **Merchant Taylor**.] A person educated at the Merchant Taylors' School, in London. *Eng.*

merchant venturer. = MERCHANT ADVENTURER. *Hist.*

mer′chet (mûr′chĕt), *n.* [AF. See MARKET.] *Feud. Law.* A fine paid to a superior for the privilege of giving a daughter in marriage.

‖**mer′ci′** (mĕr′sē′), *interj.* [F.] Thanks!

mer′ci·a·ble (mûr′sĭ·ȧ·b′l), *adj.* [OF.] Merciful; kind; forgiving. *Obs.* — **-a·bly** (-blĭ), **-a·ble·ly** (-b′l·lĭ), *adv. Obs.*

Mer′ci·an (mûr′shĭ·ăn; -sĭ·ăn), *adj.* Of or pertaining to the Anglian kingdom of Mercia, comprising central England. It was formed near the end of the 6th century from the fusion of smaller states, and in the 8th century became the most powerful of the Anglo-Saxon kingdoms. Early in the 9th century it became merged with Wessex. — *n.* A native or inhabitant of Mercia; also, the language of Mercia. See ANGLO-SAXON, *n.*, 3.

mer′ci·ful (mûr′sĭ·fo͝ol; -f′l), *adj.* [*mercy* + *-ful*.] Full of mercy; having or exercising mercy; compassionate.
A *merciful* man will be *merciful* to his beast. *Old Proverb.*
Syn. — Tender, kind, mild, clement, benignant. See HUMANE. **Ant.** — Merciless, implacable, relentless, cruel, stern.
— **mer′ci·ful·ly**, *adv.* — **mer′ci·ful·ness**, *n.*

mer′ci·less, *adj.* **1.** Destitute of mercy; pitiless; cruel; unsparing; as, a *merciless* tyrant; *merciless* waves.
2. Not having been shown mercy; unpitied. *Obs.*
Syn. and **Ant.** — See MERCIFUL.
— **mer′ci·less·ly**, *adv.* — **mer′ci·less·ness**, *n.*

mer′ci·ment (mûr′sĭ·mĕnt), *n.* [See AMERCEMENT, AMERCE.] (One's) mercy; discretion; — with *at*, *in*, or *under*. *Scot.*

mer′cu·rate (mûr′kū·rāt), *v. t.* *Chem.* To combine or treat with mercury or a mercury salt; to introduce mercury into. — **mer′cu·ra′tion** (-rā′shŭn), *n.*

mer·cu·ri- (mûr′kū·rĭ-). A combining form for *mercury*, used in chemistry for *mercuric*.

mer·cu′ri·al (mûr·kū′rĭ·ăl; 242), *adj.* [L. *mercurialis* of or belonging to Mercury, fr. *Mercurius* Mercury; cf. F. *mercuriel*.] **1.** [*cap.*] Of, pertaining to, or characteristic of, the god Mercury. *Now Rare.*
2. [*cap.*] Of or pert. to the planet Mercury; specif., *Astrol.*, born under, influenced by, or due to the influence of, it.
3. Having qualities supposed to come from being born under the planet Mercury, or fabled to belong to, or to be inspired by, the god Mercury, or likened to the properties of the metal mercury; — in various senses; as: swift; active; eloquent; clever; commercial; money-making; thievish; volatile; as, a *mercurial* youth, temperament.
4. Of or pert. to, containing, or consisting of, mercury; as, *mercurial* preparations, barometer. See MERCURY, 5.
5. *Med.* Caused by, or exhibiting the effect of, the use of mercury; as, *mercurial* sore mouth.
— **mer·cu′ri·al·ly**, *adv.* — **mer·cu′ri·al·ness**, *n.*

mer·cu′ri·al, *n.* **1.** A person born under Mercury or having mercurial qualities. See MERCURIAL, *adj.*, 3. *Obs.*
2. The plant mercury, or Good-King-Henry. *Obs.*
3. *Pharm.* A preparation containing mercury.

Mer·cu′ri·a′lis (-ā′lĭs), *n.* [NL. See MERCURY, 11.] **1.** *Bot.* A small genus of herbs of the spurge family (Euphorbiaceae). *M. annua*, the herb mercury, is a naturalized weed in North America. *M. perennis* is the dog's mercury.
2. *Pharm.* The dried herb *M. annua*, used as a purgative, diuretic, and antisyphilitic.

mer·cu′ri·al·ism (mûr·kū′rĭ·ăl·ĭz′m), *n.* [*mercurial* + *-ism*.] *Med.* The morbid condition produced by the excessive use of mercury, or by exposure to its fumes, as in mining or smelting; chronic mercury poisoning.

mer·cu′ri·al·ist (-ĭst), *n.* A mercurial person. *Obs.*

mer·cu′ri·al′i·ty (-ăl′ĭ·tĭ), *n.* **1.** Mercurial quality or state.
2. Mercurial part. *Obs.*

mer·cu′ri·al·ize (mûr·kū′rĭ·ăl·īz), *v. t.*; MER-CU′RI-AL-IZED (-īzd); MER-CU′RI-AL-IZ′ING (-īz′ĭng). **1.** To make mercurial.
2. *Med.* To treat with mercury to the point of securing its desired effect.
3. *Photog.* To treat with mercury. See DAGUERREOTYPE.
— **mer·cu′ri·al·i·za′tion** (-ĭ·zā′shŭn; -ī·zā′shŭn), *n.*

mercurial ointment. *Pharm.* An ointment containing approximately 30 per cent of finely divided metallic mercury incorporated with lard, suet, and petrolatum.

mercurial telescope. See TELESCOPE, *n.*, 1.

mer′cu·ri·am·mo′ni·um (mûr′kū·rĭ·ă·mō′nĭ·ŭm), *n.* *Chem.* A radical formerly regarded as derived from ammonium by the substitution of bivalent mercury for hydrogen; specif., the univalent radical NH_2Hg. The **mer′cu·ri·am·mo′ni·um com′pounds** or **mer·cu′ri·a·mines′** (mûr·kū′rĭ·ȧ·mēnz′; -ăm′ĭnz) are considered now to be ammonobasic mercuric salts, as NH_2HgCl (not $Hg:NH_2Cl$) and mercuric ammines, as $HgCl_2 \cdot 2NH_3$ (not $Hg(NH_3Cl)_2$).

Mer·cu′ri·an (mûr·kū′rĭ·ăn), *adj.* **a** Of or pert. to the god or the planet Mercury. **b** *Obs.* [*not cap.*] = MERCURIAL, 3.

Mer·cu′ri·an, *n.* **1.** One born under Mercury.
2. An inhabitant of Mercury.

mer·cu′ri·ate (mûr·kū′rĭ·āt), *n.* [See 1st -ATE, 3.] *Chem.* Any of certain complex salts containing mercury.

mer·cu′ri·ate (-āt), *v. t.* *Chem.* To mercurate.

mer·cu′ric (mûr·kū′rĭk; 242), *adj.* *Chem.* Of, pertaining to, or containing, mercury; — said specif. of compounds in which this element has a valence of two.

mer′cu·ride (mûr′kū·rīd; -rĭd), *n.* Also **mer′cu·rid** (-rĭd). [*mercury* + *-ide*.] *Chem.* A binary compound of mercury with another element.

mer·cu′ri·fy (mûr·kū′rĭ·fī), *v. t.*; -FIED (-fīd); -FY′ING (-fī′ĭng). [*mercury* + *-fy*.] **a** To obtain mercury from (ores). **b** To combine or mingle mercury with; to mercurialize. — **mer·cu′ri·fi·ca′tion** (-fĭ·kā′shŭn), *n.*

Mer·cu′ri·us (mûr·kū′rĭ·ŭs), *n.* [L.] Mercury.

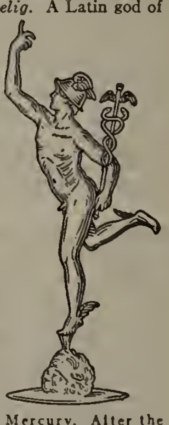
mer′cu·rize (mûr′kū·rīz), *v. t.*; -RIZED (-rīzd); -RIZ′ING (-rīz′ĭng). *Chem.* To mercurate. — **mer′cu·ri·za′tion** (-rĭ·zā′shŭn; -rī·zā′-), *n.*

mer′cu·ro- (mûr′kū·rō-; mûr·kū′rō-), **mercur-.** A combining form for *mercury*, as in **mer·cu′ro·phen.**

Mer·cu′ro·chrome′ (mûr·kū′rō·krōm′), *n.* [See MERCURY; -CHROME.] *Pharm.* A trade-mark applied to a red organic mercurated dye (chemically dibromo-hydroxy-mercuri-fluorescein), or its green, crystalline sodium salt, used as a general antiseptic and germicide; hence [*sometimes not cap.*], this dye or a salt or solution of it.

mer·cu′rous (mûr·kū′rŭs; mûr′kū·rŭs), *adj.* *Chem.* Of, pert. to, or derived from, mercury; containing mercury; — said specif. of compounds in which this element may be regarded as univalent.

Mer′cu·ry (mûr′kū·rĭ), *n.*; *pl.* -RIES (-rĭz). [L. *Mercurius*, the god and the planet; akin to L. *merx* wares; cf. F. *Mercure*. See MERCHANT.] **1.** *Rom. Relig.* A Latin god of commerce and gain whose cult was derived from that of the Greek Hermes, and to whom, accordingly, the other characteristics of Hermes, as herald or messenger of the gods, conductor of souls to the lower world, and god of eloquence, were ascribed by the Latin poets. His worship was introduced into Rome, from southern Italy, as early as 495 B.C. Cf. DI.
2. [*not cap.*] A carrier of tidings; a bearer of news; a messenger; a guide; hence, also, a newspaper (now chiefly [*cap.*] in titles).
3. *Obs.* **a** A hawker of pamphlets or the like. **b** [*not cap.*] A nimble or clever person; also, a skillful thief.
4. A statue or image of Mercury; specif., a herma.
5. [*not cap.*] A heavy silver-white metallic element, the only metal that is liquid at ordinary temperatures; — called also, popularly, *quicksilver*. Symbol, *Hg* (*hydrargyrum*); at. no., 80; at. wt., 200.61. Mercury occurs native, and in cinnabar, calomel, and a few other minerals. It is chiefly prepared by roasting cinnabar and condensing the vapors. Mercury freezes at −38.87° C. (−37.96° F.) and boils at 356.9° C. (675° F.). Sp. gr., 13.546 at 20° C. It does not oxidize unless heated nearly to boiling. It is used in barometers and thermometers and for other scientific purposes, for extracting gold and silver from their ores (amalgamation process), and, with steam, in one form of binary heat engine (which see). Its compounds are used in medicine as purgatives, alteratives, antiseptics, and esp. as antisyphilitics. Its alloys are called *amalgams*. See AMALGAM. Chemically, mercury is univalent and bivalent, forming the oxides Hg_2O (mercurous) and HgO (mercuric). Its molecule is monatomic. The element and its compounds are poisonous.


Mercury. After the Bronze Statue by Giovanni da Bologna.

6. [*not cap.*] The mercury in a thermometer or barometer.
7. A pharmaceutical preparation containing the metal mercury or a compound of it.
8. [*not cap.*] Mercurial quality, as sprightliness, spirit, mutability, fickleness, etc. *Obs.*
9. *Alchemy.* The principle of liquidity and volatility. Cf. CHIBRIT.
10. *Astron.* The smallest planet of the solar system, being the nearest known one to the sun, from which its mean distance is about 36,000,000 miles. Its period is 88 days, and its diameter about 3,000 miles. It is visible to the naked eye for about two weeks at a time, three times a year, either at dawn or twilight, as an evening or a morning star, shining with a clear white light. When the morning star, it was called *Apollo* by the Greeks. Symbol, ☿.
11. *Astrol.* A cold and dry, melancholy planet, masculine or feminine, good or evil according to its aspects or conjunctions, the mansions of which are Virgo and Gemini, the exaltation, 15° Virgo, the depression, 15° Pisces, and the orb, 7°.
12. *Bot.* [*not cap.*] [Cf. L. *herba mercurialis*, name of a plant.] Any of certain plants; as: **a** Any plant of the genus *Mercurialis*, esp. dog's mercury (*M. perennis*). **b** Good-King-Henry. **c** Poison ivy. *U. S.*
13. *Her.* Purpure, in blazoning by the planets. *Obs.*

mer′cu·ry, *v. t.* To wash with a preparation of mercury. *Obs.*

mercury arc. *Elec.* An electric discharge through mercury vapor, in a vacuum tube, emitting a blue-green light rich in actinic and ultraviolet rays. It is variously used, as for water sterilization, in photography, and, in **mercury–arc rectifier**, for converting alternating into direct current.

mer′cu·ry–arc′ lamp. A mercury-vapor lamp.

mercury boiler. A generator in which mercury is converted into mercury vapor.

mercury chloride. *Chem.* Any chloride of mercury. *Mercuric chloride*, $HgCl_2$, called also *corrosive sublimate* and *bichloride of mercury*, is a heavy, transparent, crystalline salt, easily soluble and of a sharp, metallic taste, and is obtained by subliming a mixture of mercuric sulphate and common salt, and by other methods. It is a virulent poison, a powerful antiseptic and preservative, and an antisyphilitic, and is useful in dyeing, photography, and other industries. For *mercurous chloride*, $HgCl$, see CALOMEL. There are also basic mercury chlorides.

Mer′ce·do′ni·us (mûr′kē·dō′nĭ·ŭs), **Mer′ced′i·nus** (mûr·sĕd′ĭ·nŭs), *n.* [L.] See ROMAN CALENDAR.
mer′cer·ship, *n.* See -SHIP.
merch (mĕrk). *Scot.* var. of MARROW, a substance.
mer′chan·dise, **-dis′er**, etc. Vars. of MERCHANDISE, etc.
merchant guild. See GUILD, 2.
mer′chant·hood, *n.* See -HOOD.
mer′chant·ish, *adj.* See -ISH.
mer′ci·a·ment, *n.* Short for AMERCIAMENT. *Obs.*
Mer′cier's′ bar (mĕr′syāz′). [After L. A. *Mercier* (1811–82), French urologist.] = TORUS URETERICUS.
mer′ci·fy, *v. t.* To pity. *Obs.*
Merciless Parliament. = WONDERFUL PARLIAMENT.
mercur-. = MERCURO-.
Mer′cu·re′an (mûr′kū·rē′ăn), *n.* = MERCURIAN, *n.*, 2.
mercuric chloride, cyanide, fulminate, iodide, oxide, sulphide, thiocyanate. See MERCURY CHLORIDE, CYANIDE, etc.
mer·cu′rous chlo′ride. *Chem.* = CALOMEL.
mer·cu′rous ox′ide. See MERCURY OXIDE.

EMBLEMS OF FRATERNAL AND SERVICE ORGANIZATIONS

FREE AND ACCEPTED MASONS

32D DEGREE MASONS

KNIGHTS TEMPLAR

BENEVOLENT AND PROTECTIVE ORDER OF ELKS

NOBLES OF THE MYSTIC SHRINE

INDEPENDENT ORDER OF ODD FELLOWS

KNIGHTS OF PYTHIAS

JUNIOR ORDER OF UNITED AMERICAN MECHANICS

ROYAL ARCANUM

ANCIENT ORDER OF UNITED WORKMEN

KNIGHTS OF COLUMBUS

INDEPENDENT ORDER OF FORESTERS

ANCIENT ORDER OF HIBERNIANS

WOODMEN OF THE WORLD

FORESTERS OF AMERICA

THE MACCABEES

MODERN WOODMEN OF AMERICA

INDEPENDENT ORDER B'NAI B'RITH

IMPROVED ORDER OF RED MEN

LOYAL ORDER OF MOOSE

ROTARY CLUB

KIWANIS CLUB

LIONS CLUB

AMERICAN LEGION

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ex·cept'ing (ĕk·sĕp'tĭng; ĭk-), *prep.* With rejection or exception of; with the exception that; excluding; also, otherwise than. "No one was ever yet made utterly miserable *excepting* by himself." *Lubbock.*
Syn. — See EXCEPT.

ex·cept'ing, *conj.* Except; — formerly also with *that.* *Archaic.*

‖**ex·cep'ti·o** (ĕk·sĕp'shĭ·ō), *n.* [L.] *Law.* In pleading, an exception.

‖**ex·cep'ti·o do'li** (dō'lī). [L.] *Civil Law.* A plea of fraud.

ex·cep'tion (ĕk·sĕp'shŭn; ĭk-; *see* EX-), *n.* [AF. *excepcioun* (F. *exception*), fr. L. *exceptio.*] **1.** Act of excepting, or excluding; exclusion; restriction by taking out something which would otherwise be included, as in the class, statement, or rule.
2. That which is excepted, or taken out, from others; as, almost every general rule has its *exceptions.*
3. Objection; something offered as objection or as a ground of objection, or taken as objectional; hence, cavil; dissent; offense; complaint; as, to be beyond *exception.*

She takes *exceptions* at your person. *Shak.*

4. *Law.* **a** An objection, oral or written, taken, in the course of an action or proceeding, as to bail, to the decision or a ruling of a judge, or to something in his charge to a jury. **b** In conveyancing, a clause by which the grantor excepts something out of what he before granted.
5. *Pleading.* **a** *Rom. Law.* A form of equitable plea in defense answering to the special plea in bar of English law, but so formed as to state that judgment should be rendered only upon the condition that the matters which are mentioned by way of avoidance are found not to exist or not to be true. Hence: **b** *Civil Law.* A special plea in bar. **c** *Scots Law.* = DEFENSE, 9. **d** *Equity Pleading.* An objection alleging insufficiency of some pleading or proceeding.

ex·cep'tion, *v. t. & i.* To except. *Obs.*

ex·cep'tion·a·ble (-ȧ·b'l), *adj.* Liable to exception; objectionable; also, erroneously, exceptional. — **ex·cep'tion·a·ble·ness**, *n.* — **ex·cep'tion·a·bly**, *adv.*
Syn. — See EXCEPTIONAL.
Ant. — Unexceptionable, exemplary.

ex·cep'tion·al (-ăl; -'l), *adj.* Forming an exception; not ordinary; uncommon; rare; hence, better than the average; superior; as, *exceptional* talents or opportunities.
Syn. — Extraordinary, remarkable, unusual; outstanding. EXCEPTIONAL, EXCEPTIONABLE are frequently confused. That is exceptional which is itself an exception, and so is out of the ordinary; that is EXCEPTIONABLE (cf. the commoner *unexceptionable*) to which exception may be taken, and which is therefore objectionable; as, an *exceptional* opportunity; *exceptionable* conduct.
Ant. — Ordinary, usual, commonplace. See REGULAR.
— **ex·cep'tion·al'i·ty** (-ăl'ĭ·tĭ), **ex·cep'tion·al·ness**, *n.* — **ex·cep'tion·al·ly**, *adv.*

ex·cep'tion·ar'y (ĕk·sĕp'shŭn·ĕr'ĭ *or, esp. Brit.,* -ĕr·ĭ; ĭk-; *see* EX-), *adj.* Pertaining to, indicating, or being, an exception.

ex·cep'tion·er (-ẽr), *n.* One who takes exception. *Obs.*

‖**ex·cep'ti·o pro'bat re'gu·lam de re'bus non ex·cep'tis** (ĕk·sĕp'shĭ·ō prō'băt rĕg'ū·lăm dē rē'bŭs nŏn ĕk·sĕp'tĭs). [L.] An exception (exclusion) establishes the rule as to things not excepted; — usually quoted in English in the shortened form *exceptio probat regulam* and taken to mean "the exception tests (or, loosely, proves) the rule."

ex·cep'tious (ĕk·sĕp'shŭs; ĭk-), *adj.* Disposed to take exceptions. — **ex·cep'tious·ness**, *n.* *Both Now Rare.*

‖**ex·cep'tis ex·ci'pi·en'dis** (ĕk·sĕp'tĭs ĕk·sĭp'ĭ·ĕn'dĭs). [L.] *Law.* Literally, those things being excepted that ought to be excepted; — in old law used with reference to the property excepted by law from amercement, as: the arms, horses, plows, beasts of the field, seed corn, and victuals for a year, of a knight; the merchandise of a merchant; etc.

ex·cep'tive (ĕk·sĕp'tĭv; ĭk-), *adj.* **1.** Pert. to, containing, or constituting, exception; as, an *exceptive* proposition.
2. Prone to take exception; captious; as, an *exceptive* man.
— **ex·cep'tive·ly**, *adv.* — **ex·cep'tive·ness**, *n.*

exceptive proposition. *Logic.* A proposition the subject of which is limited by exception; as, All the A's except the B's are C's.

ex·cer'e·bra'tion (ĕk·sĕr'ē·brā'shŭn), *n.* [LL. *excerebratus* deprived of brains, fr. *ex* out + *cerebrum* brain.] Act of removing the brain; esp., *Obstetrics,* removal of the brain of the fetus to facilitate delivery.

ex·cerpt' (ĕk·sûrpt'), *v.*; EX·CERPT'ED; EX·CERPT'ING. [L. *excerptus,* past part. of *excerpere,* fr. *ex* out + *carpere* to pick, gather. See HARVEST.] *Transitive:* **1.** To select, as a literary passage; to extract; cite; quote.

We have *excerpted* the following particulars. *Fuller.*

2. To take out; to remove. *Obs.*
——, *Intransitive:* To make excerpts.

ex'cerpt (ĕk'sûrpt; ĕk·sûrpt'; ĭk-), *n.* **1.** An extract; a passage selected or copied from a book or record.
2. A thing taken out; a choice. *Rare.*
Syn. — See EXTRACT.

ex·cerpt'i·ble (ĕk·sûrp'tĭ·b'l), *adj.* That may be excerpted, or from which excerpts may be taken.

ex·cerp'tion (-shŭn), *n.* [L. *excerptio.*] Act of excerpting, or selecting; also, that which is selected; an extract.

ex·cerp'tive (-tĭv), *adj.* That excerpts, or selects.

ex·cerp'tor (-tẽr), *n.* One who makes excerpts.

ex·cess' (ĕk·sĕs'; ĭk-; *see* EX-), *n.* [OF. *exces,* fr. L. *excessus* a going out, loss of self-possession, fr. *excedere, excessum,* to go out, go beyond. See EXCEED.] **1.** Act of going out or beyond; specif., of Parliament, adjournment. *Obs.*
2. State of surpassing or going beyond limits; the fact of being in a measure beyond sufficiency, necessity, or duty; that which exceeds what is usual, proper, proportionate, or specified; immoderateness; superfluity; superabundance; as, *excess* of grief or joy; an *excess* of provisions.

She was serious almost to *excess.* *Aldous Huxley.*

3. Undue or immoderate indulgence; intemperance.

Be not drunk with wine, wherein is *excess.* *Eph.* v. 18.

4. The amount or degree by which one thing or number exceeds another; remainder; as, the difference between two numbers is the *excess* of one over the other.
Syn. — EXCESS, SUPERFLUITY, REDUNDANCY. EXCESS is that which passes limits; it usually (but not always) conveys a derogatory implication; as, "In measure rein thy joy; scant this *excess*" (*Shak.*); "the proper point between sufficiency and *excess*" (*H. James*); "I think poetry should surprise by a fine *excess*" (*Keats*). SUPERFLUITY is more than is needed or desired; REDUNDANCY, as here compared (cf. REDUNDANCY), is superabundance without necessary implication (as commonly in the case of *superfluity*) of waste or uselessness; as, "Her *superfluity* the poor supplies" (*Cowper*); "the inventory of thy shirts, as, one for *superfluity,* and another for use" (*Shak.*); "the antagonism between the tropical *redundancy* of life in summer and the dark sterility of the grave" (*De Quincey*). Cf. PROFUSE, EXCESSIVE. **Ant.** — Deficiency, want. See LACK.

ex·cess' (ĕk·sĕs'; ĭk-; ĕk'sĕs; 66), *adj.* **1.** More than what is right, proper, or necessary; excessive. *Obs.*
2. More than or above the usual or specified amount; that constitutes an excess; as, *excess* baggage on a railroad, that is, baggage in excess of the amount carried free.

ex·cess' (ĕk·sĕs'; ĭk-), *v. t.* *Brit.* **a** To pay excess charges on, as luggage. **b** To charge (one) a supplemental rate.

excess fare. The extra amount paid by a passenger, as on a train or ship, for traveling beyond the point for which the ticket was purchased or for a higher class of accommodation.

excess insurance. **1.** Insurance by terms of which the underwriter's liability does not arise until the loss exceeds a stated amount, and then only on the excess above that amount.
2. Insurance over and above that necessary to meet the requirements of a coinsurance clause.

ex·ces'sive (ĕk·sĕs'ĭv; ĭk-; *see* EX-), *adj.* [OF. *excessif.*] Characterized by, or exhibiting, excess; as: **a** Exceeding what is usual or proper; overmuch. **b** Greater than the usual amount or degree; exceptional; very great.
Syn. — Extreme, intemperate, unreasonable. — EXCESSIVE, EXORBITANT, INORDINATE, EXTRAVAGANT, IMMODERATE. EXCESSIVE is the general term for what goes beyond just measure or amount; as, "*Excessive* lenity and indulgence are ultimately *excessive* rigor" (*Knox*). EXORBITANT applies to that (esp. price, charges, etc.) which is grossly excessive; INORDINATE (see etym.) frequently retains the implication of that which exceeds prescribed rules or limits; as, "The legislature . . . imposed an *exorbitant* security for their appearance" (*Gibbon*); "a resolution to contract none of the *exorbitant* desires by which others are enslaved" (*Spectator*); "The great difficulty of living content is the cherishing of *inordinate* and unreasonable expectations" (*T. E. Brown*). That is EXTRAVAGANT (see etym.) which passes the bounds of use or propriety, or which is prodigal in expenditure; as, *extravagant* praise; "She was rapacious of money, *extravagant* to excess" (*Fielding*). IMMODERATE frequently implies lack of restraint, esp. in the feelings or their expression; as, *immoderate* zeal; *immoderate* laughter. Cf. EXCESS, PROFUSE, REDUNDANCY, FLAGRANT. **Ant.** — Temperate, moderate, reasonable; inadequate, deficient.
— **ex·ces'sive·ly**, *adv.* — **ex·ces'sive·ness**, *n.*

ex'cess–loss' re'in·sur'ance. See REINSURANCE.

ex·cess'man (ĕk·sĕs'măn; ĭk-), *n.*; *pl.* -MEN (-mĕn). Formerly, a collector of excess fares due from passengers. *Brit.*

ex'cess–prof'its tax. A tax on business profits which are in excess of the average profits over a specified term of years; specif., a tax for revenue levied in various countries during the World War and after. In the United States and Great Britain excess-profits taxes terminated in 1921.

ex'cess re'in·sur'ance. See REINSURANCE.

ex·change' (ĕks·chānj'; ĭks-; *see* EX-), *n.* [ME. *eschange, eschaunge,* fr. OF. *eschange,* fr. *eschangier* (F. *échanger*) to exchange, fr. (assumed) VL. *excambiare,* fr. *ex* out + *cambiare* to change. See CHANGE; cf. EXCAMB.] **1.** Act of giving or taking one thing in return for another regarded as an equivalent; as, *exchange* is no robbery. Specif., barter.
2. Act of substituting one thing in the place of another; as, an *exchange* of grief for joy, or of a scepter for a sword; also, act of giving and receiving or losing and taking reciprocally; as, an *exchange* of civilities or of prisoners of war.
3. The thing given or received in return; esp., a publication exchanged for another.
4. A place where things or services are exchanged; specif.: **a** *Obs.* A money-changer's place of business. **b** The place where merchants, brokers, bankers, etc., meet to do business; — often, in England, shortened to *'change.*

An *exchange* is defined to be a place where business interests of a special character are brought together, and where contracts concerning them are made, as the stock *exchange,* the cotton *exchange,* or the produce *exchange.* *U. S. Internal Rev. Decisions,* 1899.

c A headquarters or central office or place of business (of a designated sort); as, a telephone *exchange.* **d** *Slang, U. S.* A barroom; a drinking saloon; — chiefly used in the proper names of such places of business.
5. *Chem.* Substitution, as in soil constituents (see SUBSTITUTION, 5); also, double decomposition.
6. *Chess.* A mutual capture of pawns or pieces. A player is said to *win* or *lose the exchange* when the difference is clear, as in exchange of a bishop for a rook.
7. *Com.* **a** The process of settling accounts or debts between parties residing at a distance from each other, without the intervention of money, by exchanging orders or drafts, called *bills of exchange;* the payment of debts in different places by an exchange or transfer of credits. If both parties reside in the same country it is ***domestic exchange***; in other cases, ***foreign exchange.*** A simple form of the process is thus: A in London is owed a certain sum by B in New York, and C in London owes D in New York a like sum. A in London draws a bill of exchange, or draft, on B in New York; C in London purchases the bill from A, who thus receives payment of his debt due from B in New York. C transmits the bill to D in New York (usually in duplicate, sometimes in triplicate, copies, called ***first of exchange, second of exchange, third of exchange***), and D receives the amount from B. See BILL OF EXCHANGE, DRAFT. **b** A bill of exchange. **c** The amount paid for the collection of a draft, bill of exchange, check, etc., drawn in one place upon another. **d** (1) Interchange or conversion of the money of two countries, or of current and uncurrent money, with allowance for difference in value. (2) Short for *rate of exchange,* that is, the price or sum per unit at which the currency of one country is exchanged for currency of another country, or uncurrent money for current money. (3) The amount of the difference in value between two currencies, or between values at two places (cf. ARBITRAGE, 2). **e** *pl.* In a clearing house, the items (drafts, checks, etc.) which are presented for settlement by mutual interchange of credits and debits and payment of balances.
8. *Econ.* Formerly, the process of interchange involved in the carrying on of commerce; the phenomena of commerce, collectively. Now, in a restricted sense, the phase representing the actual transfer of goods in the economic process of the joint production of goods and the distribution to the different factors concerned of their respective shares. See DISTRIBUTION, VALUE, PRICE, MONEY.
9. *Insurance.* See RECIPROCAL INSURANCE.
10. *Law.* A mutual grant of equal interests, the one in consideration of the other. Estates exchanged must be equal in quantity, as fee simple for fee simple (*Blackstone*). To constitute an exchange the word *exchange* itself must be used; but this method of conveyancing is obsolete.
Syn. — Barter, dealing, trade, traffic, interchange.

ex·change' (ĕks·chānj'; ĭks-; *see* EX-), *v.*; EX·CHANGED' (-chānjd'); EX·CHANG'ING (-chān'jĭng). [OF. *eschangier* (F. *échanger*). See EXCHANGE, *n.*] *Transitive:* **1.** To part with, give, or transfer to another in consideration of something received as an equivalent.

Exchange his sheep for shells. *Locke.*

Specif., to obtain or to supply something else in place of (goods returned to the seller).
2. To part with for a substitute; to lay aside, quit, or resign (something being received in place of the thing parted with); as, to *exchange* a palace for a cell.
3. To give and receive or lose and take reciprocally, as things of the same kind; to barter; swap; as, to *exchange* horses, hats. "*Exchange* forgiveness with me." *Shak.*
4. To alternate. *Rare.* *Scott.*
5. To change; transmute. *Obs.*
——, *Intransitive:* To make an exchange, or to pass or be received in exchange; as, eager to *exchange* out of his ship.
Syn. — EXCHANGE, INTERCHANGE. INTERCHANGE, as compared with EXCHANGE, emphasizes more strongly the mutual or reciprocal nature of the transaction, and accordingly applies more frequently to immaterial things; as, to *exchange* horses; to *interchange* courtesies. Cf. CHANGE, *v. t.*

ex·change', *adj.* **a** Dealing in exchange; as, an *exchange* bank, broker, office. **b** At or for which exchanges are made; as, an *exchange* charge, counter, risk, or value.

ex·change'a·ble (ĕks·chān'jȧ·b'l; ĭks-; *see* EX-), *adj.* **a** Capable of being exchanged; fit or proper to be exchanged. **b** Available for making exchanges; ratable. — **ex·change'a·bil'i·ty** (-bĭl'ĭ·tĭ), *n.* — **ex·change'a·bly**, *adv.*

exchangeable base. *Chem.* A basic element capable of replacement by base exchange (which see).

exchange broker. See BROKER.

exchange cap. Cap paper as used for bills of exchange.

exchange editor. An editor who selects from other publications material for use, comment, criticism, etc.

exchange professor. A professor teaching at an institution other than his own, sometimes in exchange with a professor from that institution, but often merely as a courtesy.

ex·chang'er (ĕks·chān'jẽr; ĭks-), *n.* **1.** One that exchanges.
2. A money-changer; a banker. *Now Hist.*

exchange rate. *Com.* See EXCHANGE, *n.*, 7 **d** (2).

exchange student. A student, usually from a foreign country, received free into an institution in exchange for one sent to that country on the same terms.

exchange ticket. A slip exchanged between stockbrokers to check accuracy of a transaction; a comparison slip.

Ex·chang'ite (-chān'jīt), *n.* A member of any of a large number of clubs (**Exchange Clubs**) in the United States, united in a national organization, founded in Detroit in 1911, and consisting of business and professional men.

ex·cheq'uer (ĕks·chĕk'ẽr; ĕks'chĕk·ẽr), *n.* [ME. *escheker,* prop., a chessboard, fr. OF. *eschequier.* See CHECKER.]
1. A chessboard; also, chess. *Obs.*
2. [*cap.*] In England under the Norman and Plantagenet kings, a department or office of state charged with the collection and management of the royal revenue and the judicial determination of all revenue causes.

Under Henry I something that is more like a permanent tribunal, a group of justiciars presided over by a chief justiciar, becomes apparent. Twice a year this group, taking the name of "the *exchequer,*" sat round the checkered table, received the royal revenue, audited the sheriffs' accounts, and did incidental justice. *Pollock & Mait.*

3. [*cap.*] *Eng. Hist.* Short for ***Court of Exchequer*** or less commonly ***Exchequer of Pleas,*** a court arising from the Exchequer Office (see def. 2), recognized as a distinct court as early as the reign of Henry III. Its jurisdiction originally was theoretically only in revenue matters, but was extended (on the fiction that the wrong to the plaintiff made him unable to pay his debts to the crown) to a concurrent jurisdiction with the other courts of common law and also an equity jurisdiction, abolished in 1841. The judges of this court were one chief and four puisne barons, so styled. By the Judicature Act of 1873 it became the Exchequer Division of the High Court of Justice, and later it was merged in the King's (Queen's) Bench Division. The ***Court of Exchequer Chamber*** was a court of appeal, established in the reign of Edward III, composed of the judges of the three courts. It was abolished in 1875.
4. [*often cap.*] In modern times in Great Britain and Northern Ireland, the department or office of state charged with the receipt and care of the national revenue; hence, the national banking account or purse. The Chancellor of the Exchequer is an important member of the British cabinet.

Careful distinction must be drawn between the *exchequer* and the treasury. The *exchequer* is the national purse, the treasury is the finance department of the state, which controls the *exchequer* on behalf of the executive government, subject to the check and audit of the comptroller and auditor-general. *Dict. of Pol. Econ.*

5. A treasury; esp., a national or royal treasury.
6. Pecuniary possessions or resources; purse; finances.

ex·cheq'uer (ĕks·chĕk'ẽr), *v. t.*; -UERED (-ẽrd); -UER·ING.
1. To keep in or as in an exchequer, or treasury. *Obs.*
2. To proceed against in the Court of Exchequer.

exchequer bill. In England, a short-time bill of credit, or promissory note, issued by governmental authority and bearing interest. They have been superseded by ***treasury bills,*** issued by the Bank of England under treasury warrant and sold at a discount and bearing no interest.

exchequer bond. An English government bond constituting part of the unfunded debt. It bears interest.

Exchequer Chamber. *Eng. Hist.* **1.** The chamber devoted to the business of the royal Exchequer.
2. The Court of Exchequer Chamber. See EXCHEQUER, 3.

Exchequer Court. = EXCHEQUER, 3.

Exchequer Domesday. See DOMESDAY, 2.

Exchequer of the Jews. *Eng. Hist.* In the 13th century, a department of the royal exchequer charged with the supervision of all business with the Jews.

Exchequer tally. See TALLY, *n.*, 1.

ex·cide' (ĕk·sīd'), *v. t.*; EX·CID'ED (-sīd'ĕd; -ĭd; 119); EX·CID'ING (-sīd'ĭng). [L. *excidere, excisum,* fr. *ex* out + *caedere* to cut. See INCISE; cf. EXCISE to cut off.] To cut out.

ex·cip'i·ent (ĕk·sĭp'ĭ·ĕnt; 159), *adj.* [L. *excipiens, -entis,* pres. part. of *excipere.* See EXCEPT.] Taking exception.

ex·cip'i·ent, *n.* **1.** One that receives, as a ground for painting.
2. *Pharm.* An inert substance used in preparing remedies (as pills) to give them a suitable form or consistency.

ex'ci·ple (ĕk'sĭ·p'l), *n.* [NL. *excipulum,* fr. L. *excipula,* pl., receptacles. See EXCEPT.] *Bot.* In lichens, the outer covering of the apothecium. — **ex·cip'u·lar** (ĕk·sĭp'ū·lẽr), *adj.*

Ex·cip'u·la'ce·ae (ĕk·sĭp'ū·lā'sē·ē), *n. pl.* [NL. See EXCIPULE; -ACEAE.] *Bot.* A family of imperfect fungi (order Sphaeropsidales) characterized by cup-shaped pycnidia.

ex'ci·pule (ĕk'sĭ·pūl), **ex·cip'u·lum** (ĕk·sĭp'ū·lŭm), *n.* *Bot.* An exciple. — **ex·cip'u·li·form'** (ĕk·sĭp'ū·lĭ·fôrm'), *adj.*

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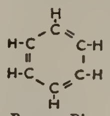
ex·cep'tion·a·bl. Exceptionable. *Ref. Sp.*
ex·cep'tion·less, *adj.* See -LESS.
ex·cep'tiv. Exceptive. *Ref. Sp.*
ex·cept'less, *adj.* Not making exceptions; inclusive. *Obs.*
ex·cep'tor, *n.* = EXCEPTER.
ex'cer·cise. ✝ EXERCISE.
ex·cern' (ĕk·sûrn'), *v. t.* [L. *excernere.* See EXCRETE.] To excrete; discharge. *Obs.* — **ex·cern'ent** (-sûr'nĕnt), *adj.* *Obs.*
ex·cerp', *v. t.* [L. *excerpere.*] = EXCERPT. *Obs.*
ex·cerp'tiv. Excerptive. *Ref. Sp.*
ex·cess'ful, *adj.* Excessive. *Obs.*
ex·cheat'. ✝ ESCHEAT.
ex·chew'. ✝ ESCHEW.

F G H I J K L M

hy'dro·gen (hī'drō·jĕn), *n.* [F. *hydrogène*; so called because water is generated by its combustion. See HYDRO-; -GEN.] An element commonly isolated as a colorless, tasteless, odorless gas, inflammable (burning with a hot, almost nonluminous, flame to form water), and lighter than any other known substance (sp. gr., compared with air, 0.0695). Symbol, *H*; at. no., 1; at. wt., 1.0078. Free hydrogen occurs only very sparingly on the earth, though it is abundant in the atmospheres of the sun and many stars. Hydrogen is combined with oxygen in water, of which it constitutes 11.19 per cent. It is also a constituent of most organic compounds, of acids and bases, ammonia, etc. Its true nature was first recognized by Cavendish. Ordinary hydrogen gas is diatomic (its molecules consisting of two atoms, H_2), but dissociates into free atoms at high temperatures. The evidence for the existence of *hyzone*, H_3, an active form of hydrogen corresponding to ozone, is conflicting. Hydrogen is prepared by decomposing water with the electric current or with sodium, potassium, or the like, by the action of dilute acids on various metals, and by other methods. One liter of hydrogen gas weighs (at sea level, 45° lat., 0° C., and 760 mm.) 0.08987 gram. It can be condensed to a clear, colorless liquid boiling at −252.7° C. (the lightest liquid known; sp. gr., 0.07), and to a colorless solid melting at −259.1° C. (sp. gr., 0.08). One gram of hydrogen gas evolves, on combustion with oxygen to form water vapor, 28.680 calories; it is therefore a desirable ingredient of gases for burning. It is absorbed by certain metals, notably palladium. Chemically, hydrogen is the typical univalent element. Though not resembling the metals physically, it is electropositive. The hydrogen atom is the simplest of all atoms, the ordinary isotope (H^1) consisting of a single proton and a single valence electron. It is accompanied by a minute amount of a heavier isotope (H^2). The *hydrogen ion* (H^+) is the positive ion of all acids. Hydrogen is the typical reducing agent (see REDUCE, *v. t.*, 15 **c**). Gaseous hydrogen is used for filling balloons, for hardening fats, for making synthetic ammonia, etc., and liquid hydrogen for producing extremely low temperatures. Mixtures of hydrogen with oxygen or air are liable to violent explosion on ignition, but the regulated combination of the gases is utilized in the *oxyhydrogen blowpipe* (which see). A still hotter flame is obtained with the *atomic hydrogen torch*, by which a jet of ordinary hydrogen is sent across an electric arc bathed in the same gas (thus picking up hydrogen atoms set free by the arc) and then burned. Ordinary hydrogen gas is a mixture of two modifications, *orthohydrogen* and *parahydrogen* (see ORTHO-, PARA-).

benzene ring *or* **nucleus**. *Chem.* A ring of six carbon atoms believed to exist in the aromatic compounds. (See BENZENE.) The six atoms are united in some way, not well understood, which gives distinctive properties to compounds containing the ring. In the case of benzene, the simplest aromatic compound, six hydrogen atoms are attached to the ring (see *Illust.*); substitution of one or more of these by other atoms or groups gives the various benzene derivatives. The ring being symmetrical, there is but one variety of each monosubstitution product. Of every disubstitution product there are three possible varieties, in which the carbon atoms in union with the substituting atoms or groups are, respectively, adjacent, separated by another carbon atom, or opposite, in the ring. These three positions are known respectively as the ortho (*o*), meta (*m*), and para (*p*) positions. Trisubstitution products all of whose groups are alike are called *vicinal* or *consecutive* (*v*) when all three groups are adjacent, *asymmetrical* or *irregular* (*a*) when two are adjacent, and *symmetrical* (*s*) when all three are separated. For convenience in designating derivatives in general, the six carbon atoms of benzene are numbered from 1 to 6 in order around the ring. Thus, *m*-dinitrobenzene or 1,3-dinitrobenzene is understood to mean benzene in which two hydrogen atoms in the meta relation have been replaced by two nitro groups.

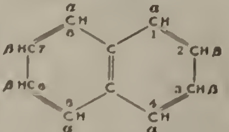


Benzene Ring (Kekulé's Formula).

ac·tin'i·um (ăk·tĭn'ĭ·ŭm), *n.* [NL., fr. Gr. *aktis, aktinos*, ray.] *Chem.* **a** A supposed element wrongly thought by Phipson to occur in commercial zinc; — so called from the darkening effect of light on some zinc sulphide. **b** A radioactive element discovered by Debierne in 1899 in pitchblende. Symbol, *Ac* or *Act*; at. no., 89. In chemical properties it resembles lanthanum. The radioactive disintegration of actinium proceeds, with the emission of alpha, beta, and gamma rays, as follows (the atomic number of each product being given in parentheses): **actinium** (89) →**radioactinium** (90)→**actinium X** (88)→**actinon** (86)→ **actinium A** (84)→**actinium B** (82)→**actinium C** (83)→ **actinium C″** (**actinium D**) (81)→**actinium Ω″** (hypothetical isotope of lead) (82). Because the above actinium A is so extremely short-lived, its existence was for a time overlooked, and actinium B, C, and C″ were formerly called *actinium A, B,* and *C* respectively. Actinium is believed to be formed by alpha radiation from protoactinium.

naph'tha·late (năf'thȧ·lāt), *n.* *Chem.* A salt or ester of naphthalic acid.

naph'tha·lene (năf'thȧ·lēn), *n.* [From NAPHTHA.] *Chem.* A hydrocarbon, $C_{10}H_8$, one of the principal constituents of coal tar, forming brilliant white platelike crystals of peculiar odor. It is obtained esp. from the middle oil from coal tar, and is used extensively in the manufacture of dyes and explosives, as a defense against moths (as in moth balls), etc. It contains a double benzene nucleus and is the parent substance of a large number of derivatives. For convenience in distinguishing isomers, the carbon atoms are designated by numbers, as shown in the formula. There are two kinds of mono derivatives, 1 (or α) and 2 (or β) (see NAPHTHOL, 1). Diderivatives are sometimes distinguished by prefixes; as, 1,2-, *ortho*; 1,3-, *meta*; 1,4-, *para*; 1,5-, *ana*; 1,6-, *epi*; 1,7-, *kata*-; 1,8-, *peri*; 2,6-, *amphi*; 2,7-, *pros*.



Naphthalene

al'a·bam'ine (ăl'ȧ·băm'ēn; -ĭn), *n.* [*Alabama* + *-ine*.] A rare element related to the halogens, reported in monazite sand, etc., in 1931. Symbol, *Ab* or *Am*, at. no., 85.

vir·gin'i·um (vẽr·jĭn'ĭ·ŭm), *n.* [NL., fr. the State *Virginia*. See VIRGINIA, 4.] *Chem.* An element reported in 1930–32 as occurring in minute quantities in pollucite, sea water, and other materials. It has at. no. 87 and belongs to the alkali metal family. Symbol, *Vi*.

> **Chemistry**
>
> The definitions of chemical terms on this composite page, and the pages following, show the lateness and usefulness of this Dictionary.
>
> It includes a clear, interesting, and informing article on every chemical element (*hydrogen, virginium*); present-day information about radioactive substances (*actinium*); diagrams of many chemical compounds (*benzene ring, naphthalene*), showing their structure according to modern ideas; and scientifically accurate and entirely understandable little articles about everyday substances (*ammonia, carbon dioxide, formaldehyde*), answering such questions as What are they? Of what are they composed? How are they used?

rad'i·cal (răd'ĭ·kăl), *n.* [From RADICAL, *adj.*] **4.** [F. *radical*.] *Chem.* A fundamental constituent of a compound. Specif.: **a** Orig., the nonoxygenous part of an acid, whose union with the "acidifying principle" (oxygen) constitutes the acid. *Lavoisier.* **b** Formerly, and still sometimes, a single replaceable atom; — called also *simple radical*. **c** Now, usually, a group of atoms replaceable by a single atom or remaining unchanged during a series of reactions, and hence conveniently regarded as playing the part of a single atom; — formerly, and still sometimes, called also *compound radical*. Cf. BENZOYL. Typical radicals are: cyanogen (CN), amidogen (NH_2), ammonium (NH_4), hydrocarbon radicals, as ethyl (C_2H_5) and methyl (CH_3), etc. The above are univalent, but there are bivalent radicals, as methylene (CH_2) and oxalyl (OC.CO); trivalent radicals, as methenyl (CH), glyceryl (CH_2CHCH_2), etc. R, R′, etc., are sometimes used as general symbols for hydrocarbon radicals. A few radicals can exist in the free state (that is, as compounds), as carbonyl, CO (carbon monoxide), the nitroso radical, NO (nitrous oxide), the sulphonyl group, SO_2 (sulphur dioxide), and certain complex organic radicals (see TRIPHENYLMETHYL). In modern usage, a radical is known as an ***acid radical*** if its hydroxide is an acid.
☞ The term *radical* is sometimes restricted to groups containing carbon. Cf. RESIDUE, 2 **b**.

com'pound (kŏm'pound), *n.* **2.** *Chem.* A distinct substance formed by a union of two or more ingredients in definite proportions by weight; as, water is a *compound* of oxygen and hydrogen. Every definite chemical *compound* always contains the same elements, united in the same proportions by weight, and with the same internal arrangement. Cf. ADSORPTION COMPOUND.

i'so·tope (ī'sō·tōp), *n.* [*iso-* + Gr. *topos* place.] *Chem.* One of two or more elements having the same atomic number and hence occupying the same position in the periodic table, identical in chemical behavior and distinguishable only by radioactive transformations or small differences in atomic weight. Thus, radium B, radium D, thorium B, and actinium B are all *isotopes* of lead and of one another. Because of their difference in mass, isotopes may be distinguished in the mass spectrograph and in band spectra, and partial separation may be effected by differential diffusion, etc. A group of isotopes is sometimes called a *pleiad*. Many of the common elements are mixtures of isotopes. — **i'so·top'ic** (-tŏp'ĭk), *adj.*

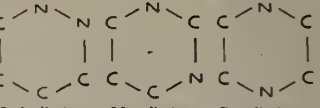
a·mi'no- (ȧ·mē'nō-; ăm'ĭ·nō-). [From AMINE.] *Chem.* A prefix meaning *pertaining to* or *containing the group* NH_2 *united to a radical other than an acid radical*, as in *aminobenzene*; — distinguished from *amido-*.

aminoacetal	**aminocaproic**	**amino-oxypurin**
aminoacetanilide	**aminodiphenyl**	**aminopropionic**
aminoacetone	**aminoethionic**	**aminopurine**
aminoacetophenetidine	**aminoformic**	**aminoquinoline**
aminoacetophenone	**aminoglutaric**	**aminosuccinamic**
aminoanthraquinone	**aminoguanidine**	**aminosulphonic**
aminobarbituric	**aminoketone**	**aminothiophen**
aminobenzaldehyde	**aminolipin**	**aminovaleric**
aminobenzamide	**aminomalonic**	**aminoxylol**
aminobenzoic	**aminomyelin**	

form·al'de·hyde (fôr·măl'dē·hīd), *n.* Also **-hyd**. [*form-* + *aldehyde*.] *Chem.* A colorless gas, HCHO, with a sharp odor, formed by the partial combustion of methanol and in other ways; — called also *methanal* and *formic aldehyde*. See ALDEHYDE **b**. It is a very effective preservative and disinfectant, and preparations of it, most of which are aqueous solutions, are sold under various trade-mark names, as *Formalin, Formol*, etc. See PHOTOSYNTHESIS. Its ability to condense with other substances is utilized in making synthetic resins. It is readily changed to solid white polymeric mixtures known variously as *polyoxymethylene, oxymethylene, trioxymethylene, metaformaldehyde, paraformaldehyde*, etc. The trimer, $(HCHO)_3$, called *α-trioxymethylene*, has a cyclic structure.

A'vo·ga'dro's hy·poth'e·sis (ä'vō·gä'drōz). *Chem.* The hypothesis that equal volumes of all gases at the same temperature and pressure contain equal numbers of molecules; — called also **Avogadro's law**. It is based on Gay Lussac's law and is a fundamental conception of modern chemistry. It was announced in 1811 by Avogadro, and was formulated independently by Ampère in 1814, whence it has sometimes been called *Ampère's law*.

di'a·zine (dī'ȧ·zēn; dī·ăz'ēn; -ĭn), *n.* Also **-zin**. [*di-* + *az-* + *-ine*.] *Chem.* Any of three parent compounds, $C_4H_4N_2$, containing a ring of four carbon and two nitrogen atoms, and called specif. *orthodiazine* or *pyridazine*, *metadiazine* or *pyrimidine*, and *paradiazine* or *pyrazine*; also, any of a large class of derivatives of these three.



Orthodiazine Ring. Metadiazine Ring. Paradiazine Ring.

di·az'o- (dī·ăz'ō-; dī·ā'zō-), **diaz-**. [*di-* + *azo-*.] *Chem.* A combining form denoting the *presence* of a group *of two nitrogen atoms*, N_2, in direct union with *one* hydrocarbon radical and also (usually) with some other group or an atom. Diazo compounds are in general unstable. Those of the aromatic series are obtained by the action of nitrous acid on certain amino compounds. Those having the formula RN_2X, in which X is an acid atom or group, as Cl or NO_3, probably have the formula RN(⋮N)X and are better called ***di'a·zo'ni·um com'pounds*** (dī'ȧ·zō'nĭ·ŭm) from their analogy to the quaternary ammonium compounds. Thus, the compound $C_6H_5N_2OH$, sometimes called *diazobenzene*, is assumed to have two tautomeric forms, C_6H_5N(⋮N)OH (benzene-diazonium hydroxide, a base, forming diazonium salts with acids) and C_6H_5N:NOH (benzene-diazo hydroxide, or benzene-diazotic acid, forming diazotates with alkalies). Cf. BENZENEDIAZONIUM. Diazonium salts are often formed in the manufacture of dyes, etc. Aliphatic diazo compounds have a somewhat different structure (see DIAZOMETHANE). — **di·az'o** (dī·ăz'ō; -ā'-), *adj.*

flu'o·rine (flōō'ō·rēn; -rĭn; 157), *n.* Also **-rin**. [So called from its occurrence in the mineral *fluorite*.] *Chem.* An element of the chlorine family, a pungent, corrosive gas of pale greenish-yellow color, best isolated by electrolysis of molten potassium hydrogen fluoride (HKF_2). Symbol, *F*; at. no., 9; at. wt., 19.00. Fluorine is found (in combined form only) in fluorite and cryolite, and in small amounts in several minerals, in mineral waters, in bones, etc. It is extremely active chemically, even at very low temperatures, so that, although it had long been recognized as an element, it was isolated for the first time in 1886 (by Moissan). It cannot be prepared or kept in vessels of glass, which it attacks freely. Sp. gr. (referred to air), 1.31. By intense cold it has been reduced to a yellow liquid boiling at −187° C., and to a solid melting at about −223° C. See FLUORITE, HYDROFLUORIC.

sodium carbonate. Any carbonate of sodium; soda; specif., the normal carbonate, Na_2CO_3, a salt of strong alkaline taste, found in nature, as in soda lakes, but more often made artificially, as by the burning of sea plants, by the Leblanc process, or (now chiefly) by the Solvay process. It is obtained in the anhydrous state (as in soda ash) and with various proportions of water of crystallization. The decahydrate, $Na_2CO_3.10H_2O$ (*sal soda* or *washing soda*), forms transparent crystals (*soda crystals, washing crystals*) easily efflorescing and changing into the monohydrate, $Na_2CO_3.H_2O$, a white crystalline powder sold as *crystal carbonate*. Sodium carbonate is very extensively used in making glass, soap, paper, chemical reagents, etc., in softening water, in scouring and bleaching, and as an alkaline reagent in various other industries, in medicine, photography, etc.

glu'cose (glōō'kōs; 242), *n.* [F., irreg. fr. Gr. *gleukos* must, sweet wine; akin to Gr. *glykys* sweet. See GLUCINA.] **1.** *Chem.* A sugar, $C_6H_{12}O_6$, of the aldohexose class, occurring in three optically different forms, of which only one, dextrose, dextroglucose, or ordinary glucose, occurs in nature. See DEXTROSE. Although glucose reacts like a hydroxy aldehyde, $CH_2OH(CHOH)_4CHO$, this structure easily passes into two stereoisomeric lactol or cyclic forms,

$$CH_2OH\overbrace{CH(CHOH)_3CHOH}^{O}$$

known as *α*- and *β-glucose*, and many regard the usual form of glucose as an equilibrium mixture of these two.
2. *Com.* A light-colored, uncrystallizable sirup obtained by the incomplete hydrolysis of starch (usually by heating it with dilute acid) and containing chiefly maltose, dextrin, and dextrose; mixing sirup; starch sirup. It is used as a cheap and harmless sweetening agent. In the U. S. it is made chiefly from cornstarch, and is called also *corn sirup*.

am·mo'ni·a (ă·mō'nĭ·ȧ; -mōn'yȧ), *n.* [From sal *ammoniac*, said to have been first obtained from camel's dung near the temple of Jupiter *Ammon*. See AMMONIAC.] **1.** *Chem.* A colorless gaseous compound of nitrogen and hydrogen, NH_3, of extremely pungent smell and taste. Density, compared with air, 0.59. Ammonia can easily be condensed by cold and pressure to a colorless liquid boiling at −33.3° C., and for this reason it is much used in producing artificial cold by the absorption of heat which takes place when the liquid ammonia evaporates. One volume of water dissolves nearly 1300 volumes of ammonia gas under standard conditions (0° C. and one-atmosphere pressure). The aqueous solutions are known as *ammonia water, aqua ammoniae*, or *spirits of hartshorn*, because ammonia was formerly obtained by the destructive distillation of hartshorn. It is still made from nitrogenous organic matter, as horn, hoofs, etc., but is mainly produced as a by-product of the gas and coke industry. However, synthetic ammonia is increasing rapidly in importance. See NITROGEN FIXATION. Ammonia is alkaline (whence its name *volatile alkali*) and readily combines with acids to form ammonium salts (see AMMONIUM). It forms important organic derivatives (see AMINE, AMINO ACID, AMIDE, ALKALOID). Ammonia, both free and combined, is much used in medicine and the arts, and is especially important as a fertilizer.
2. Popularly, ammonia water.

carbon dioxide. *Chem.* A heavy colorless gas, CO_2, extinguishing flame; — popularly called *carbonic-acid gas*. It is produced by the action of acids on carbonates, by the fermentation of liquors, by the combustion and decomposition of organic substances, etc. It is formed in the explosion of firedamp in mines, and hence constitutes part of the *afterdamp*; it is also known as *chokedamp*. Water will absorb its own volume of it, and more than this under pressure, and in this state becomes the common soda water of the shops and the carbonated water of natural springs. Combined with lime, it constitutes limestone, common marble, and chalk. Plants make use of it in the process of photosynthesis, retaining the carbon for the construction of food material, and giving out the oxygen. Gaseous carbon dioxide can be condensed to a colorless liquid boiling at about −78° C. (−108° F.), and this, by sufficient cooling, solidifies to a white substance called **car'bon–di·ox'ide snow**. This solid vaporizes without melting (at ordinary pressures) and is used as a refrigerant. It is marketed under the trade-mark *Dry Ice*.

e·lec'trot'o·nize (ē·lĕk'trŏt'ô·nīz; ĕl'ĕk-; 63), *v. t.* *Physiol.* To cause or produce electrotonus in, as a nerve.
e·lec'trot'o·nus (-nŭs), *n.* [NL., fr. *electro-* + Gr. *tonos* tension.] *Physiol.* The modified condition of a nerve when a constant current of electricity passes through any part of it. See ANELECTROTONUS, CATELECTROTONUS.
e·lec'trot'ro·pism (ē·lĕk'trŏt'rô·pĭz'm; ĕl'ĕk-; 63), *n.* [*electro-* + *-tropism.*] *Biol.* Tropism in which an electric current is the orienting factor; galvanotropism. — **e·lec'tro·trop'ic** (ē·lĕk'trô·trŏp'ĭk), *adj.*
e·lec'tro·type (ē·lĕk'trô·tīp), *n.* [*electro-* + *-type.*] **1.** A facsimile plate, esp. for use in printing, made by taking an impression in a special kind of wax or a sheet of soft lead, depositing in this mold a thin shell of copper, nickel, or the like, by an electrolytic process, and backing this shell with molten metal. The wax mold is rendered conductive for electroplating by coating it with graphite.
2. **a** A print made from such a plate. **b** Electrotypy.
e·lec'tro·type, *v. t. & i.* To make facsimile plates (of) by electrotypy. — **e·lec'tro·typ'er** (-tīp'ẽr), *n.*
e·lec'tro·typ'ing (-tīp'ĭng), *n.* The process or business of making electrotypes and prints from electrotypes.
e·lec'tro·typ'y (-tīp'ĭ), *n.* The process of producing electrotype plates. — **-typ'ic** (-tĭp'ĭk), *adj.* — **-typ'ist** (-tīp'ĭst), *n.*
e·lec'tro–ul'tra·fil·tra'tion (-ŭl'trȧ·fĭl·trā'shŭn), *n.* *Phys. Chem.* Ultrafiltration brought about by electroosmosis.
e·lec'tro·va'lence (-vā'lĕns), *n.* [*electro-* + *valence.*] *Physical Chem.* The number of electrons which an atom must gain or lose to acquire the same stable grouping of electrons as found in the atom of the nearest related inert gas; — called also *polar valence.* See ATOMIC THEORY.
e·lec'tro·va'len·cy (-vā'lĕn·sĭ), *n.* Electrovalence.
e·lec'tro·win' (ē·lĕk'trô·wĭn'), *v. t. & i.* [*electro-* + *win.*] To recover (metals) from solutions by electrolysis.
e·lec'trum (ē·lĕk'trŭm), *n.* [L., fr. Gr. *ēlektron.* See ELECTRIC; cf. ELECTRON.] **1.** Amber. *Obs.*
2. A natural pale-yellow alloy of gold and silver.
3. German-silver plate. See GERMAN SILVER.
e·lec'tu·ar'y (-tū̇·ẽr'ĭ *or, esp. Brit.,* -ẽr·ĭ), *n.; pl.* -IES (-ĭz). [ME., fr. ML. (& LL.) *electuarium,* fr. Gr. *ekleikton,* fr. *ekleichein* to lick up, fr. *ek* out + *leichein* to lick. See LICK; cf. ECLEGM.] *Pharm.* A medicine composed of powders, or other ingredients, incorporated with honey or sirup so as to form a pasty mass. See CONFECTION, *n.*, 6.
Electuary Mithridates. Mithridate.
el'ee·mos'y·nar, -mos'i·nar (ĕl'ê·mŏs'ĭ·nẽr; -mŏz'ĭ·nẽr; ĕl'ē·ē-), *n.* Almoner. *Scot. Obs. exc. Hist.*
el'ee·mos'y·nar'y (ĕl'ê·mŏs'ĭ·nĕr'ĭ; ĕl'ē·ē-; -mŏz'-; *or, esp. Brit.,* -nẽr·ĭ), *adj.* [ML. *eleemosynarius,* fr. L. *eleemosyna* alms. See ALMS.] **1.** Relating or devoted to charity (sense 11), alms, or almsgiving.
2. Given in charity or alms; having the nature of alms.
3. Supported by charity; as, *eleemosynary* poor.
— **el'ee·mos'y·nar'i·ly,** *adv.* — **el'ee·mos'y·nar'i·ness,** *n.*
el'ee·mos'y·nar'y, *n.; pl.* -IES (-ĭz). *Obs.* **1.** An almoner.
2. One who subsists on charity; a dependent.
el'e·gance (ĕl'ê·găns), *n.* [F. *élégance,* fr. L. *elegantia,* fr. *elegans, -antis,* elegant.] **1.** Refined gracefulness or propriety expressing fastidious taste; nice appropriateness; esp., richness and polish in harmonious simplicity; — chiefly of literary style, but extended to decoration, conduct, scientific processes, etc.
2. An exemplification or form of the elegant; an elegant expression.
Syn. — ELEGANCE, GRACE. ELEGANCE always suggests refinement, polish, propriety, esp. as the result of breeding or nice selective instinct; GRACE, as here compared (cf. MERCY), is more commonly native than acquired; as, *elegance* of manners, diction; *grace* of movement, of bearing; "romantic *grace* and classic *elegance*" (*Hazlitt*).
el'e·gan·cy (-găn·sĭ), *n.; pl.* -CIES (-sĭz). Elegance; — now chiefly in *pl.* "Lover of dear, dead *elegancies.*" *Lowell.*
el'e·gant (-gănt), *adj.* [F. *élégant,* fr. L. *elegans, -antis;* akin to L. *eligere* to pick out, choose, select. See ELECT.]
1. Correctly fine in dress and person; as, an *elegant* courtier.
2. Characterized by, or having, elegance; — originally of literary style, but extended to modes of life, material objects, and scientific processes; marked by grace, propriety, and refinement; as, an *elegant* style; *elegant* furnishings; an *elegant* vase; an *elegant* demonstration. *Elegant* sometimes connotes a degree of artificiality or overrefinement.
3. Fastidiously tasteful or expressing fastidious taste; refined in discrimination or behavior; as, an *elegant* scholar; *elegant* literature; an *elegant* society.
4. Admirable; excellent; fine; as, an *elegant* steak. *Vulgar.*
Syn. — Tasteful, polished, fastidious, graceful, refined, handsome, richly ornamental.
Ant. — Crude, crass, gross, blatant, vulgar.
‖**é'lé'gant'** (ā'lā'gäɴ'), *n. masc.,* ‖**é'lé'gante'** (-gäɴt'), *fem.* [F.] A fashionable person.
el'e·gi'ac (ĕl'ê·jī'ăk; -ăk; ē·lē'jĭ·ăk; 277), *adj.* [LL. *elegiacus,* fr. Gr. *elegeiakos;* cf. F. *élégiaque.* See ELEGY.] **1.** *Gr. & Roman Lit.* Designating, or pertaining to, the development of Greek poetry succeeding the epic period, characterized by use of the elegiac meter. This meter was invented by the Ionian poets, and was used not only for elegies commemorative of the dead, but also for martial, gnomic, and erotic themes. It continued to be cultivated, esp. in poems dealing with love, after all other forms of Greek poetry had disappeared.
2. Of, belonging to, or written in, elegy or elegiacs; plaintive; expressing sorrow or lamentation; as, *elegiac* strains; writing, or having written, elegies or elegiacs.
3. Used in, or suited to, elegies; as, *elegiac* meter; the *elegiac* verse; the *elegiac* pentameter (see ELEGIAC, *n.*, 1 **a**).
el'e·gi'ac (ĕl'ê·jī'ăk; -ăk; ē·lē'jĭ·ăk; 277), *n.* **1.** Elegiac verse: **a** The "elegiac pentameter," of which the scheme is that of the second verse of the elegiac couplet; — so called because it was anciently scanned –◡◡|–◡◡|––|◡◡–|◡◡–. **b** *pl.* A series of elegiac distichs; a poem or poems in such verse.
2. An elegiac poet. *Obs.* *Sir Philip Sidney.*
el'e·gi'a·cal (ĕl'ê·jī'ȧ·kăl), *adj.* Elegiac.
elegiac distich *or* **couplet.** A couplet consisting of a dactylic hexameter and (so-called) pentameter, as follows (see PROSODY):

–◡◡|–◡◡|–◡◡|–◡◡|–◡◡|––
–◡◡|–◡◡|⌴ ‖ –◡◡|–◡◡|– ⌅

Also, in accentual English verse:

In' the hex|am'eter | ris'es the | foun'tain's | sil'very | col'umn;
In' the pen|tam'eter | aye' ‖ fall'ing in | mel'ody | back'.
Coleridge (Schiller).

el'e·gi·am'bus (ĕl'ê·jī·ăm'bŭs), *n.; pl.* -BI (-bī). [LL. See ELEGY; IAMBUS.] *Gr. & Lat. Pros.* A verse compounded of half an elegiac pentameter (two dactyls and a long syllable) and an iambic dimeter. Thus: –◡◡|–◡◡|–^ ‖ ◡–|◡–|◡–|◡–. — **el'e·gi·am'bic** (ĕl'ê·jī·ăm'bĭk), *adj. & n.*
e·le'gi·ast (ē·lē'jĭ·ăst), *n.* A composer of elegies.
el'e·gist (ĕl'ê·gĭst), *n.* A composer of elegies.
e·le'git (ê·lē'jĭt), *n.* [L., he has chosen, fr. *eligere* to choose. See ELECT.] *Law.* A judicial writ of execution (given by the Statute of Westminster II) by which a defendant's goods are appraised and delivered to the plaintiff, and, if necessary, all (originally only a moiety) of his lands are delivered, to be held till the debt is paid by the rents and profits, or until the defendant's interest has expired. Now by statute in England the goods can no longer be taken, and the creditor may have the land sold. The writ also is still in use in some States of the United States.
el'e·gize (ĕl'ê·jīz), *v. t. & i.;* EL'E·GIZED (-jīzd); EL'E·GIZ'ING (-jīz'ĭng). To lament or celebrate in elegy.
el'e·gy (-jĭ), *n.; pl.* -GIES (-jĭz). [F. *élégie,* fr. L. *elegia,* fr. Gr. *elegeia,* fem. sing., fr. *elegeia,* neut. pl. of *elegeion* a distich in elegiac verse, fr. *elegeios* elegiac, fr. *elegos* a song of mourning, of obscure origin.] **1.** Any poem in elegiac meter. *Now Rare.*
2. **a** A poem of subjective character, sometimes reflective, but more often a lament, esp. of unrequited love.

Hangs odes upon hawthorns and *elegies* on brambles . . . , deifying the name of Rosalind. *Shak.*

b Now, chiefly, a poem of lamentation for the dead; a funereal song; as, Matthew Arnold's *elegies.*
3. *Music.* A composition in pensive or mournful mood.
Elegy Written in a Country Churchyard. A poem (published 1751) by Thomas Gray.
e·le'i·din (ê·lē'ĭ·dĭn), *n.* [Cf. ELAIDIN.] *Biochem.* A substance, believed to be an intermediate stage in the formation of keratin, found in small granules (staining deeply with haematoxylin) in the cells of the stratum granulosum of the epidermis.
el'e·me, *or* **el'e·mi, figs** (ĕl'ê·mĭ). [Turk. *elehmeh* sifted.] A brand of Smyrna figs of superior quality, packed flat.
el'e·ment (ĕl'ê·mĕnt), *n.* [OF., fr. L. *elementum,* of obscure origin.] **1.** One of the simple substances or principles of which, according to early natural philosophers, the physical universe is composed. The aim of the earliest Greek philosophy was to discover some type of being, or principle of matter, to which all forms of physical existence might be reduced. Thales believed this element to be water; for Anaximander it was "the moist"; for Anaxagoras it was air; for Heraclitus, a kind of ethereal fire. Empedocles maintained that there are four elements, fire, air, water, and earth, and these are the ***four elements*** generally recognized up to modern times, esp. in the natural and occult sciences, as the basis for classification of planets, bodies, herbs, etc. To these correspond the four qualities hot, moist, cold, and dry. Every element has two qualities, one inherent and distinctive, the other derived from the element next in order and, in this particular, its affinity. Fire is hot, and is dry as earth; air is moist, and is hot as fire; water is cold, and is moist as air; earth is dry, and is cold as water. Aristotle added a fifth element, ether, as that of the stars, and many allusions in literature are to this celestial element, "the *element*" being used for the sky, the welkin.

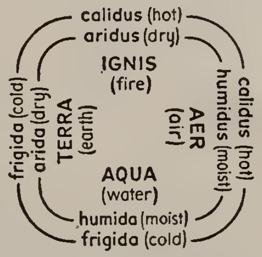


Diagram of the Elements, based on an Anglo-Norman text of the 14th cent.

Of *elements*
The grosser feeds the purer: Earth the Sea;
Earth and the Sea feed Air; the Air those Fires
Ethereal. *Milton.*

2. Hence: **a** One of the four elements in its natural form or occurrence; as, the watery *element,* that is, water; — often, in allusion to the ocean, "the *element*" (cf. def. 1). "Mere *element* for drink." *Cheyne.* **b** *pl.* Conditions of weather viewed as activities of the elements, now usually implying violent or severe weather; as, to trust oneself to the *elements.* **c** One of the four elements viewed as a natural habitat; as, water is the *element* of fishes; hence, the state or sphere natural or suited to any person or thing.

He lived submerged in a flood of curiosity and doubt, as his native *element.* *James Branch Cabell.*

3. One of the constituent parts, principles, materials, or traits of anything; that is: one of the relatively simple forms or units which enter variously into a complex substance or thing (as, bricks are *elements* of a wall; cells are *elements* of living bodies); or one of the simplest parts or principles of which anything consists or into which it may be analyzed; as, sensations are *elements* of consciousness.
4. Hence: *pl.* **a** *Obs.* The letters of the alphabet; — a Latin use. **b** The simplest principles of any system in philosophy, science, or art; rudiments; as, the *elements* of music. **c** Any outline regarded as containing the fundamental features of a thing; as, the *elements* of a plan.
5. One of the necessary data or values upon which a system of calculations depends, or general conclusions are based; as, the *elements* of a planet's orbit.
6. One of the several members composing a mechanism, structure, etc., esp. one of the minimum number of separate members composing an ideal schematic representation of a structure; as, the *elements* of a sectional boiler.
7. *Anat.* One of the ultimate units of a tissue, as a cell.
8. *Astron.* One of the celestial spheres of the ancient astronomy; one of the celestial bodies. *Obs.*
9. *Chem.* A substance which cannot be separated into substances different from itself by ordinary chemical means; one of a limited number of distinct varieties of matter which, singly or in combination, compose every material substance. The conception of *element* among the ancients and the alchemists of the Middle Ages was very uncertain. Its modern meaning was given it by Boyle, and it is even thought that he did not consider the element, as he defined it, to be the ultimate building unit of matter. William Prout later suggested that hydrogen is the fundamental unit from which all the elements are built, but was at that time unheeded. Recent discoveries have proved that an element can be separated into substances different from itself. Sir Ernest Rutherford has used swiftly moving alpha particles to knock hydrogen out of nitrogen and many of the other lighter elements, thus changing them into different elements. Radioactivity also results in the disintegration of elements to form different elements. The modern conception of the atom of the element is that it is built from hydrogen and helium nuclei and electrons, the number and arrangement of units determining the character of the element. Cf. ATOMIC THEORY, ELECTRON. Although it has been shown that an element is not an ultimate constituent of matter, it still has a real chemical existence and a true order of chemical magnitude. The term, then, retains the same meaning, but our physical conception of the element has been altered. The elements at present recognized are naturally classified in several families, as the family of the alkali metals, the chlorine family, and the like. They are roughly divided into two great classes: the metals, as sodium, calcium, etc., which form basic compounds; and the nonmetals, as oxygen, sulphur, chlorine, which form acid compounds; but the distinction is only relative, and some, as arsenic, tin, aluminum, etc., form both acid and basic compounds. The most important characteristic of every element is its atomic number (though formerly it was its atomic weight or equivalent). When the elements are tabulated in the order of their atomic numbers (formerly, in the order of their atomic weights), the arrangement constitutes the series of the periodic law of Mendelyeev. See PERIODIC LAW. This law enables us to predict the properties of unknown elements. The number of elements is ninety-two (including alabamine and virginium), even when each group of isotopes is counted as a single element. Many of the elements with which we are familiar, as hydrogen, carbon, iron, gold, etc., have been recognized, by means of spectrum analysis, in the sun and the fixed stars. In formulas the elements are designated by abbreviations of their names in Latin or Modern Latin. The following list of elements gives the names used by the American Chemical Society. It does not include isotopes as separate individuals.

CHEMICAL ELEMENTS
WITH INTERNATIONAL ATOMIC WEIGHTS, 1932. (O = 16.)

	Symbol	At. no.	At. wt.
Actinium	Ac	89	?
Alabamine(?)	Ab	85	?
Aluminum	Al	13	26.97
Antimony	Sb	51	121.76
Argon	A	18	39.944
Arsenic	As	33	74.93
Barium	Ba	56	137.36
Beryllium	Be	4	9.02
Bismuth	Bi	83	209.00
Boron	B	5	10.82
Bromine	Br	35	79.916
Cadmium	Cd	48	112.41
Calcium	Ca	20	40.08
Carbon	C	6	12.00
Cerium	Ce	58	140.13
Cesium	Cs	55	132.81
Chlorine	Cl	17	35.457
Chromium	Cr	24	52.01
Cobalt	Co	27	58.94
Columbium	Cb	41	93.3
Copper	Cu	29	63.57
Dysprosium	Dy	66	162.46
Erbium	Er	68	167.64
Europium	Eu	63	152.0
Fluorine	F	9	19.00
Gadolinium	Gd	64	157.3
Gallium	Ga	31	69.72
Germanium	Ge	32	72.60
Glucinum = BERYLLIUM			
Gold	Au	79	197.2
Hafnium	Hf	72	178.6
Helium	He	2	4.002
Holmium	Ho	67	163.5
Hydrogen	H	1	1.0078
Illinium	Il	61	(146?)
Indium	In	49	114.8
Iodine	I	53	126.917
Iridium	Ir	77	193.1
Iron	Fe	26	55.84
Krypton	Kr	36	83.7
Lanthanum	La	57	138.92
Lead	Pb	82	207.22
Lithium	Li	3	6.940
Lutecium	Lu	71	175.0
Magnesium	Mg	12	24.32
Manganese	Mn	25	54.93
Masurium	Ma	43	?
Mercury	Hg	80	200.61
Molybdenum	Mo	42	96.0
Neodymium	Nd	60	144.27
Neon	Ne	10	20.183
Neoytterbium = YTTERBIUM			
Nickel	Ni	28	58.69
Niobium = COLUMBIUM			
Niton = RADON			
Nitrogen	N	7	14.008
Osmium	Os	76	190.8
Oxygen	O	8	16.0000
Palladium	Pd	46	106.7
Phosphorus	P	15	31.02
Platinum	Pt	78	195.23
Polonium	Po	84	?
Potassium	K	19	39.10
Praseodymium	Pr	59	140.92
Protoactinium	Pa	91	?
Radium	Ra	88	225.97
Radon	Rn	86	222.
Rhenium	Re	75	186.31
Rhodium	Rh	45	102.91
Rubidium	Rb	37	85.44
Ruthenium	Ru	44	101.7
Samarium	Sm	62	150.43
Scandium	Sc	21	45.10
Selenium	Se	34	79.2
Silicon	Si	14	28.06
Silver	Ag	47	107.880
Sodium	Na	11	22.997
Strontium	Sr	38	87.63
Sulphur	S	16	32.06
Tantalum	Ta	73	181.4
Tellurium	Te	52	127.5
Terbium	Tb	65	159.2
Thallium	Tl	81	204.39
Thorium	Th	90	232.12
Thulium	Tm	69	169.4
Tin	Sn	50	118.70
Titanium	Ti	22	47.90
Tungsten	W	74	184.0
Uranium	U	92	238.14
Vanadium	V	23	50.95
Virginium(?)	Vi	87	?
Xenon	Xe	54	131.3
Ytterbium	Yb	70	173.5
Yttrium	Y	39	88.92
Zinc	Zn	30	65.38
Zirconium	Zr	40	91.22

10. *pl. Eccl.* The bread and wine used in the Eucharist.
11. *Elec.* **a** Either of the pieces of metal or other substances constituting a voltaic couple. **b** The positive and negative electrodes of a voltaic couple assembled complete. Cf. CELL, 12 **a**. **c** The active part of an electrical device; as, the rotating *element* of a watt-hour meter.
12. *Kinematics.* Either of the components of a pair. See CHAIN, *n.*, 9, *Illust.*
13. *Math.* **a** An infinitesimal part of any magnitude of the same nature as the entire magnitude. **b** The generatrix of a curve, or surface, or volume considered as described by a moving point, or curve, or surface. **c** A constituent of a determinant or matrix (which see). **d** Of a class, any entity that satisfies the test or condition of that class.
14. *Mil.* One of the subdivisions of a unit or other command, such as a file, squad, or company.
15. *Phonet.* One of the component sounds of words.
16. *Psychol.* A simple mental process.
Syn. — See COMPONENT.
el'e·ment (ĕl'ê·mĕnt), *v. t.;* -MENT'ED; -MENT'ING. To compose of elements; also, to instruct in rudiments. *Obs.*
el'e·men'tal (-mĕn'tăl; -t'l), *adj.* **1.** Of, pertaining to, or like, the elements (see ELEMENT, 1, 2) or one of them; hence: **a** Simple; pure; primal; primary; as, *elemental* fire. **b** Ruling or animating the elements or an element; as, an *elemental* spirit. **c** Pertaining or relating to the powers or phenomena of physical nature in general; as, *elemental* worship. **d** Pertaining to or like great natural forces.

The greatness of *elemental* things. *H. G. Wells.*

2. *Chem.* Elementary; uncombined.
3. Pertaining to rudiments, or first principles; elementary.
4. Forming a constituent part; as, *elemental* protoplasm.
5. Material; physical. *Obs.*

The slaying of an *elemental* life. *Milton.*

Syn. — See ELEMENTARY.
el'e·men'tal, *n.* **1.** In medieval belief, a spirit of one of the four elements, as, the salamander of fire, the sylph of air, the undine of water, and the gnome of earth.
2. *Theos.* A subhuman nature spirit.
el'e·men'tal·ism (-ĭz'm), *n.* Worship of the elements or of elemental spirits. See -ISM. — **el'e·men'tal·ist** (-ĭst), *n.*
el'e·men·tal'i·ty (-mĕn·tăl'ĭ·tĭ), *n.* Elemental state or quality. *Rare.*
el'e·men·tar'i·ty (-tăr'ĭ·tĭ), *n.* Elementariness. *Obs.*

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e·lec'tro·vec'tion, *n.* [*electro-* + *vection.*] = ELECTROOSMOSIS.
el'ee·mos'i·nar'y. Eleemosynary. *Ref. Sp.*
eleemosynary corporation. See CORPORATION, 4.
e'lef (ā'lĕf). Var. of ALEPH.
el'e·fant. Elephant. *Ref. Sp.*
el'e·gant·ly, *adv.* of ELEGANT.
‖**é'lé'gie'** (ā'lā'zhē'), *n.* [F.] *Music.* = ELEGY, 3.
e·le'gi·ous (ē·lē'jĭ·ŭs), *adj.* Like elegy; mournful. *Obs.*
El'e·ha'nan (ĕl'ê·hā'năn). *D. Bib.*
e·lek'tron. Var. of ELECTRON.
El'-E·lo'he-Is'ra·el (ĕl'ê·lō'hē-ĭz'rȧ·ĕl; ĕl'ĕl'ō·hē-), *n.* *Bib.* Literally, God, the God of Israel; — the name given by Jacob to the altar built at Shechem.
el'e·men'tal·ize, *v. t.* See -IZE.
el'e·men'tal·ly, *adv.* of ELEMENTAL. [*Obs.*]
el'e·men'tar, *adj.* Elementary.

F G H I J K L M

chel'o·nin (kĕl'ō·nĭn; kē·lō'nĭn), *n.* An eclectic resinoid prepared from the turtlehead *Chelone glabra,* for use as a cathartic and tonic.

che'lo·phore (kē'lō·fōr; kĕl'ō-; 181), *n.* [Gr. *chēlē* claw + *-phore.*] *Zool.* One of the anterior paired appendages of the Pycnogonida, bearing a pincers-shaped claw.

chelp (chĕlp), *n.* [Imitative.] The chirp or cheep of a young bird; also, pert talk. *Dial. Eng.* — *v. i.* To chirp; also, talk pertly.

Chel'sea chi'na (chĕl'sē). China made at Chelsea, England, from about 1745 until 1770, when the Chelsea works were amalgamated with those at Derby.

Chel'sea–Der'by ware (-där'bĭ; -dûr'bĭ). A ware made at Derby, England, from Chelsea molds after the amalgamation of the Chelsea and Derby factories.

Chelsea figurine. A statuette in Chelsea ware.

Chelsea ware. Porcelain ware made at Chelsea, England, esp. between 1745 and 1770. Cf. CHELSEA CHINA.

Chel'ten·ham (chĕlt'năm), *n.* *Print.* A style of type.
☞ This is a line of 6-point CHELTENHAM OLD STYLE.

Che·lu'ra (kē·lū'rȧ), *n.* [NL., fr. Gr. *chēlē* claw + *oura* tail.] *Zool.* A genus of marine amphipod Crustacea, which bore into and sometimes destroy timber.

Che·lyd'i·dae (kē·lĭd'ĭ·dē), *n. pl.* [NL., irreg. fr. Gr. *chelys* tortoise + *-idae.*] *Zool.* A family of side-necked fresh-water turtles inhabiting South America and Australasia.

Chel'y·dra (kĕl'ĭ·drȧ), *n.* [NL., fr. *chelydros* a tortoise.] *Zool.* A genus comprising the common snapping turtle and its allies. It is the type of a family, **Che·lyd'ri·dae** (kē·lĭd'rĭ·dē), containing in addition only the alligator turtle. See SNAPPING TURTLE. — **chel'y·droid** (kĕl'ĭ·droid), *adj.*

chel'ys (kĕl'ĭs), *n.* [Gr., tortoise, lyre.] **1.** *Music.* **a** The ancient Greek lyre, at first made of a tortoise shell. **b** *Obs.* The viol.
2. [*cap.*] [NL.] *Zool.* A genus containing only the matamata.

che·ma'wi·nite (chē·mä'wĭ·nīt), *n.* [From the Indian name of a Hudson Bay trading post.] A fossil resin similar to amber.

Chem'e·hue'vi (chĕm'ā·wā'vē), *n.; pl.* -HUEVIS (-vēz). An Indian of a Shoshonean tribe, now of Arizona.

chem'i·at'ry (kĕm'ĭ·ăt'rĭ), *n.* [*chem-* + *-iatry.*] *Med.* Iatrochemistry. — **chem'i·at'rist** (-rĭst), *n.*

chem'ic (kĕm'ĭk; *Brit. also* kĭm'ĭk), *adj.* Also **chem'ick.** [See ALCHEMIC, CHEMISTRY.] **1.** Alchemic; hence, counterfeit or unreal; as, *chemic* gold. *Archaic.*
2. Iatrochemical. *Obs.*
3. Chemical. *Archaic.*

chem'ic, chem'ick, *n.* [See CHEMISTRY.] **1.** *Obs.* **a** An alchemist. **b** An iatrochemist. **c** A chemist. **d** An apothecary.
2. (Usually *chemick.*) Dilute solution of bleaching powder.

chem'ic, chem'ick, *v. t.;* CHEM'ICKED (-ĭkt); CHEM'ICK·ING. **1.** To transmute by or as by alchemy. *Obs.*
2. (Usually *chemick.*) To treat with chemick.

chem'i·cal (kĕm'ĭ·kăl), *adj.* **1.** Alchemical; iatrochemical. *Obs.*
2. Of or pertaining to chemistry; characterized or produced by the forces and operations of chemistry; employed in the processes of chemistry; occupied with chemistry as a study; as, *chemical* changes or combinations.
3. Acting or operated by chemical agency; as, a *chemical* extinguisher or fire engine; also, treated with or performed by the aid of a chemical or chemicals; as, *chemical* cleaning.
☞ For many expressions beginning with *chemical,* see the word or phrase with which *chemical* is used.

chem'i·cal, *n.* A substance obtained by a chemical process, or used for producing a chemical effect. *Heavy chemicals* are those produced and handled in large lots, and often in more or less crude quality, as sulphuric and nitric acids, caustic soda, aluminum sulphate; *fine chemicals* are those handled in smaller lots and often in specially purified condition.

chem'i·cal, *v. t.* To treat with a chemical or chemicals, as starch with alkali.

chemical affinity, attraction, *or* **avidity.** = AFFINITY, 6.

chemical analysis. = ANALYSIS, 4.

chemical antidote. An antidote which combines chemically with the poison to form a harmless compound.

chemical balance. Any balance used in chemical work. Cf. BALANCE, ANALYTICAL BALANCE.

chemical black. *Dyeing.* A black obtained by the interaction of nutgalls, pyroligneous acid, and a ferric salt.

chemical cleaning. Dry cleaning.

chemical compound. = 4th COMPOUND, 2.

chemical constitution. The constitution of chemical compounds, as determined by the nature and number of the atoms in their molecules and the relation of these atoms to one another; molecular structure.

chemical dynamics. That branch of physical chemistry which treats of the rates of chemical changes.

chemical energy. *Physical Chem.* **a** Chemical affinity. **b** Energy consisting of chemical affinity as intensity factor and equivalent weight as capacity factor.

chemical engine, chemical fire engine. *Fire Apparatus.* A fire extinguisher of large size, containing soda and an acid, mounted on wheels; also, a unit of fire apparatus consisting of one or more such extinguishers, or tanks (*chemical tanks*), with hose and other equipment for fire fighting.

chemical engineering. See ENGINEERING, *n.,* 1. — **chemical engineer**

chemical equivalent. = EQUIVALENT, *n.,* 3 a & b.

chemical extinguisher. = FIRE EXTINGUISHER b.

chemical forest. Northern hardwoods mostly suitable for chemical wood.

chemical harmonicon. = PYROPHONE.

chemical hose. Hose used with a chemical engine.

chemical individual. = INDIVIDUAL, *n.,* 5.

chemical intensity. = AFFINITY, 6.

chemical isomerism. See ISOMERIC, 1.

chem'i·cal·ize (kĕm'ĭ·kăl·īz), *v. t.;* -IZED (-īzd); -IZ'ING (-īz'ĭng). To treat with chemicals; as, *chemicalized* paper. — **chem'i·cal·i·za'tion** (-ĭ·zā'shŭn; -ī·zā'shŭn), *n.*

chemical lead (lĕd). Lead of sufficient purity for use in assaying and suitably resistant to corrosion by acids, etc., for use in tanks, pipes, and other apparatus in chemical manufacture; specif., as a market term in the United States, lead of this character made in southeastern Missouri.

chem'i·cal·ly, *adv.* According to chemical principles, or from the chemist's standpoint; by chemical process.

chemically pure. Strictly, free from all impurities detectable by chemical analysis; — applied in commerce rather indefinitely to chemicals of a high degree of purity.

chemical messenger. *Physiol.* An autacoid.

chemical paper. Paper made entirely from chemically prepared wood pulp.

chemical pneumonia. *Med.* An acute generalized inflammation of the lungs with consolidation and other characteristics of pneumonia, caused by the inhalation of irritating gases or powders, occurring esp. in chemical warfare.

chemical porcelain, ware, etc. *Ceramics.* Hard porcelain, ware, etc., used for chemical purposes.

chemical potential. = AFFINITY, 6.

chemical property. Any property involving the notion of chemical change, as the explosive property of gunpowder.

chemical sense. *Physiol.* A nervous mechanism or function for reception of and response to chemical stimulation; specif., the central nervous process initiated by excitation of special receptors (*chemoreceptors*) sensitive to chemical substances in solution. One kind, appearing universally in the case of body surfaces bathed with solutions of irritants, and, in vertebrates, involving spinal as well as cranial nerves, is called the ***common chemical sense,*** and distinguished from the *special* chemical senses, as taste and smell, recognizable in man and the higher animals.

chemical tank. See CHEMICAL ENGINE.

chemical telegraph. A telegraphic apparatus by which the message is recorded on a moving slip of paper moistened with a solution the chemical composition of which is altered on the passage of the current through a stylus.

chemical telephone. A telephone operating by chemical or electrolytic action. See MOTOGRAPH.

chemical tonus. *Physiol.* The condition of slight but continuous chemical activity in muscles, maintained by frequent reflex excitation and leading to production of heat.

chemical warfare. *Mil.* Warfare in which chemicals other than explosives are used, as irritant, burning, or asphyxiating gases, smokes, incendiary mixtures, etc.

Chemical Warfare Service. *Mil.* In the United States, a service of the regular army under the head of an officer having the rank of brigadier general and known as the Chief of Chemical Warfare Service. It is charged with the investigation, development, manufacture, or procurement and supply to the army of all smoke and incendiary materials, all toxic gases, and all gas-defense appliances, and with the training of the army in chemical warfare. See INSIGNIA, *Illust.*

chemical wood. The wood of any of several northern hardwood trees, used in destructive distillation to obtain acetic acid, wood alcohol, acetone, and other chemicals.

chemic blue. The color indigo carmine.

chemic green. The color Bremen blue.

chem'ick·er (kĕm'ĭk·ĕr), *n.* One whose work is chemicking. See CHEMIC, *v. t.,* 2.

chemic mixer. A worker who mixes bleaching powder with water for use in kiers. *Brit.*

chem'i·co- (kĕm'ĭ·kō-). A combining form of *chemic,* signifying *relation to, or connection with, chemistry,* as in **chem'i·co·min'er·al·og'i·cal,** relating to chemistry and mineralogy; **chem'i·co·phys'i·cal,** physicochemical; **chem'i·co·phys'i·o·log'i·cal,** relating to physiological chemistry; **chem'i·co·vi'tal,** relating to the chemistry of living things. Other combinations are:

chemicoastrological	chemicodynamic	chemicopharmaceutical
chemicobiologic	chemicoengineering	
chemicobiology	chemicomechanical	chemicophysics

chem'i·co·cau'ter·y (-kô'tẽr·ĭ), *n.* [*chemico-* + *cautery.*] Cauterization with a chemical preparation, as silver nitrate.

chem'i·graph (kĕm'ĭ·grăf; 83), *n.* An engraving made by chemigraphy.

che·mig'ra·phy (kē·mĭg'rȧ·fĭ), *n.* [*chemi-* + *-graphy.*] **a** Originally, any mechanical engraving process depending upon chemical action, including now photographic action. **b** A process of etching on metal not employing photography. — **chem'i·graph'ic** (kĕm'ĭ·grăf'ĭk), *adj.*

chem'i·loon' (shĕm'ĭ·lōōn'), *n.* [*chemise* + panta*loon.*] A woman's garment of chemise and drawers united. *U. S.*

‖**che·min'** (shĕ·măN'; *colloq.* shmăN), *n.* [F.] Road; way.

‖**che·min' de fer'** (dĕ fâr'; *colloq.* smăNt' fâr'). [F.] **1.** Literally, road of iron; railroad or railway.
2. A variety of baccarat.

‖**che·min' de ronde'** (dĕ rôNd'; *colloq.* shman' d'rôNd'). [F., way for making the round.] *Fort.* A protected footpath, orig. on the top of the rampart, later in the scarp slope of the ditch or between the glacis and the ditch.

‖**che·mi·née'** (shĕ·mē'nā'), *n.* [F.] **a** Chimney; fireplace. **b** = CHIMNEY, 8.

chem'i·o- (kĕm'ĭ·ō-). = CHEMO-, as in **chem'i·o·tac'tic, chem'i·o·tax'ic, chem'i·o·tax'is, chem'i·o·trop'ic, chem'i·ot'ro·pism.**

chem'i·pho'tic (kĕm'ĭ·fō'tĭk), *adj.* [*chemi-* + *photic.*] *Phys. Chem.* Pert. to a change of chemical energy to light.

chem'is (shĕm'ĭs), *n.* [OF. *chemois, chef mes.* See CHIEF; MANSE.] The chief house on an estate. *Hist. Scot.*

che·mise' (shĕ·mēz'; shĕ-), *n.* [F., shirt, fr. LL. *camisa, camisia,* shirt, thin dress, prob., through Celt., fr. an old form of G. *hemd* shirt. See HAME; cf. CAMISE.] **1.** A loose undergarment worn by women to cover the torso. *Chemise* "has been variously applied at different times; perhaps originally (as still in Romance languages) the undergarment, usually of linen, both of men and women, a shirt; but now restricted to that worn by women, formerly called 'smock' and 'shift.' Formerly also applied to some undergarment distinct from the 'smock,' as well as to a priest's alb or surplice, the robe of a herald, etc." *Oxf. E. D.*
2. *Fort.* A lining, or secondary, wall, as of an earthwork, or of an outer wall. *Obs. exc. Hist.*
3. The mandrel or core on which a gun barrel is welded.

chem'i·sette' (shĕm'ĭ·zĕt'), *n.* [F., dim. of *chemise.*] **1.** A sleeveless undergarment, or bodice, worn by women, usually covering the neck, shoulders, and breast.
2. A similarly shaped ornamental adjunct of a dress worn to fill in the open front and neck, or as an outer garniture.

chem'ism (kĕm'ĭz'm), *n.* [Cf. F. *chimisme.* See CHEMISTRY.] **1.** Chemical activity or affinity; also, chemical property or relationship.
2. *Philos.* Operation in obedience to laws of chemistry; hence, specif., the relation, or type of organization, characteristic of chemical elements in a compound substance.
The concepts of the various phases of natural existence: e.g. they include "mechanism" and "*chemism*" and "life." *S. Alexander.*

chem'ist (kĕm'ĭst; *in Brit. use still occas.,* kĭm'ĭst), *n.* [Shortened from *alchemist;* cf. F. *chimiste.*] **1.** One versed in chemistry; formerly, an alchemist or an iatrochemist.
2. A druggist. See DRUGGIST, APOTHECARY. *British.*

chemist and druggist. See DRUGGIST.

chem'is·try (kĕm'ĭs·trĭ), *n.; pl.* -TRIES (-trĭz). [From CHEMIST. See ALCHEMY.] **1.** The science that treats of the composition of substances, and of the transformations which they undergo. The term was originally, during the alchemical period, synonymous with *alchemy* and later with *iatrochemistry;* and it was not until the time of Robert Boyle (1627–91) that chemistry became an independent science. The period from Boyle to Antoine Lavoisier (1743–94) is called the ***phlogistic period;*** it was followed by the ***quantitative,*** or ***modern, period.*** The beginning of the modern period, from Lavoisier to Dalton (or about 1777 to 1803), is often called the ***antiphlogistic period*** (though the latter term is also applied to the entire modern period); from 1803 on, it is called the ***period of the atomic theory.*** See ALCHEMY, IATROCHEMISTRY, PHLOGISTON, ATOMIC THEORY. Chemistry has long been divided into *organic chemistry* and *inorganic chemistry,* from the belief, once current, that compounds are produced in living organisms by some vital force and are essentially different from those made in the laboratory and in inorganic nature. But many products of life processes and a much larger number of new carbon compounds related to them have since been prepared artificially, and the distinction is now merely one of convenience. ***Organic chemistry,*** then, is the chemistry of the hydrocarbons and their derivatives (or, which is almost the same, the chemistry of carbon compounds), whether found in organisms or not, while ***inorganic chemistry*** treats of all other compounds and of the elements. Such compounds as the oxides of carbon, the carbides, and the cyanides are assigned sometimes to the one, sometimes the other. ***Theoretical chemistry*** deals with the laws of chemical phenomena and the theories serving to explain them. It is sometimes called *general chemistry,* but the latter phrase is perhaps better reserved for chemistry in general, or a general survey of chemistry (inorganic, organic, etc.). ***Physical chemistry*** (in practice nearly synonymous with theoretical chemistry) studies quantitatively the relations between chemical and physical properties of substances and their constitution. It includes *thermochemistry, electrochemistry, photochemistry, colloid chemistry,* etc. ***Biochemistry*** deals with the chemical compounds and processes occurring in organisms (plants and animals). It is often called *physiological chemistry,* esp. when treating of the normal working of the organism, as contrasted with *pathological chemistry.* The chemistry of plants is sometimes called *phytochemistry,* that of animals, *zoochemistry.* Correlated to these in the inorganic field are *metallurgical, mineralogical,* and *geological chemistry. Applied* chemistry, as distinguished from *pure* chemistry, has various branches, as *agricultural, pharmaceutical, sanitary, industrial* (or *technical*) and *engineering chemistry.* Here belongs also *analytical chemistry* in the ordinary sense. See ANALYSIS. See also ELEMENT, ATOM, PERIODIC LAW, NOMENCLATURE.
2. a Composition and chemical properties; as, two substances similar in appearance but differing in their *chemistry.* **b** Chemical processes and phenomena collectively; as, behavior of an organism resulting from its *chemistry.*
3. A treatise on chemistry.
4. Figuratively, a process of bodily or mental alteration, ferment, analysis, etc., resembling chemical action.
That intellectual *chemistry* which can separate good qualities from evil in the same person. *James Boswell.*

chemist's shop. See DRUGSTORE.

chem'i·type (kĕm'ĭ·tīp), *n.* [*chemi-* + *-type.*] *Engraving.* Any of a number of processes involving chemical action, by which an impression from an engraved plate is obtained, to be used for printing on a printing press.

chem'i·typ'y (kĕm'ĭ·tīp'ĭ), *n.; pl.* -TYPIES (-ĭz). Chemitype.

chem'o- (kĕm'ō-), **chem-.** [From CHEMICAL.] A combining form denoting *relation to chemical action* or *to chemicals,* as in: **chem'as·the'ni·a, chem'es·the'sis, chem'o·re'flex, chem'o·re·sist'ance.**

chem'o·cep'tor (kĕm'ō·sĕp'tẽr), *n.* A chemoreceptor.

chem'o·ki·ne'sis (-kĭ·nē'sĭs; -kī-), *n.* [NL., fr. *chemo-* + *kinesis.*] Increased activity of free-moving organisms produced by a chemical agency. — **-net'ic** (-nĕt'ĭk), *adj.*

che·mol'y·sis (kē·mŏl'ĭ·sĭs), *n.* [*chemo-* + *-lysis.*] Decomposition by chemical reagents. — **chem'o·lyt'ic** (kĕm'ō·lĭt'ĭk), *adj.*

chem'o·lyze (kĕm'ō·līz), *v. t.* To subject to chemolysis.

chem'o·re·cep'tor (kĕm'ō·rē·sĕp'tẽr), *n.* *Physiol.* A receptor for chemical stimuli, as a taste or smell receptor.

chem'o·se'ro·ther'a·py (kĕm'ō·sēr'ō·thĕr'ȧ·pĭ), *n.* [*chemo-* + *sero-* + *-therapy.*] *Med.* Chemotherapy combined with treatment with immune serum.

Che'mosh (kē'mŏsh), *n.* [Heb. *Kemōsh.*] The national god of the Moabites.

che·mo'sis (kē·mō'sĭs), *n.; pl.* -SES (-sēz). [NL., fr. Gr. *chēmōsis* a swelling of the cornea resembling a cockleshell, fr. *chēmē* a gaping, hence a cockleshell.] *Med.* Inflammatory swelling of the conjunctival tissues surrounding the cornea.

chem'os·mo'sis (kĕm'ŏs·mō'sĭs; -ŏz·mō-), *n.; pl.* -SES (-sēz). [*chem-* + *osmosis.*] Chemical action taking place through an intervening membrane. See -OSMOSIS. — **chem'os·mot'ic** (-mŏt'ĭk), *adj.*

chem'o·syn'the·sis (kĕm'ō·sĭn'thē·sĭs), *n.* [*chemo-* + *synthesis.*] *Physiol.* Synthesis of organic compounds by energy derived from chemical reactions. Cf. PHOTOSYNTHESIS. — **chem'o·syn·thet'ic** (-sĭn·thĕt'ĭk), *adj.*

chem'o·tax'is (-tăk'sĭs), *n.* [*chemo-* + *-taxis.*] *Biol.* A taxis in which one or more diffusing (chemical) substances constitute (directly or by physical action) the orienting factor, as in the movement of a protozoan toward dissolving organic matter. See TAXIS, 2 a. — **chem'o·tac'tic** (-tăk'tĭk), *adj.* — **-tac'ti·cal·ly** (-tĭ·kăl·ĭ), *adv.*

chem'o·tax'y (kĕm'ō·tăk'sĭ), *n.* Chemotaxis.

chem'o·ther'a·peu'tics (-thĕr'ȧ·pū'tĭks), *n.* [*chemo-* + *-therapeutics.*] *Med.* Chemotherapy. — **-peu'tic** (-tĭk), *adj.*

chem'o·ther'a·py (kĕm'ō·thĕr'ȧ·pĭ), *n.* [*chemo-* + *-therapy.*] *Med.* The treatment of internal disease by chemical reagents that have a specific and immediate toxic effect upon the microorganism that causes the disease, without seriously poisoning the patient. An example is the treatment of malaria with quinine. — **chem'o·ther'a·pist** (-pĭst), *n.*

che·mot'ic (kē·mŏt'ĭk), *adj.* *Med.* Marked by, or pertaining to, chemosis.

chem'o·trop'ic (kĕm'ō·trŏp'ĭk), *adj.* *Biol.* Characterized by, exhibiting, or pertaining to, chemotropism. — **chem'o·trop'i·cal·ly** (-ĭ·kăl·ĭ), *adv.*

che·mot'ro·pism (kē·mŏt'rō·pĭz'm), *n.* [*chemo-* + *-tropism.*] *Biol.* Tropism in which one or more diffusing (chemical) substances constitute the orienting factor, as in the curvature of a plant root towards a food supply.

Che·mung' (shē·mŭng'), *adj.* [From *Chemung* Co., N. Y.] *Geol.* Pertaining to, or designating, a subdivision of the Upper Devonian in New York, included in the Chautauquan. See GEOLOGY, *Chart.* — **Che·mung',** *n.*

Chen (kĕn), *n.* [NL., fr. Gr. *chēn* a goose.] *Zool.* A genus of geese (the snow geese) with white plumage in the adult.

che'na (chā'nä), *n.* [Hind. *cenā.*] Common millet, or land where it is cultivated. *India.*

Che'luh (kē'lōōh). *Bib.*
Che·lu'bai (kē·lōō'bī). *Bib.*
chem-. = CHEMO-.
Chem'a·ku'an (chĕm'ȧ·kōō'ăn), *adj.* = CHIMAKUAN.
chem'i- (kĕm'ĭ-). = CHEMO-.
chem'i·at'ric (kĕm'ĭ·ăt'rĭk), *adj.* = IATROCHEMICAL.
chem'ick. Var. of CHEMIC.
chem'i·lu'mi·nes'cence, chem'i·co·lu'mi·nes'cence, *n.* See LUMINESCENCE.
cheminey. † CHIMNEY.
chem'i·set'. Chemisette. *Ref. Sp.*
che·mi'so (chā·mē'sō), *n.* **a** Var. of CHAMISO. **b** = GREASEWOOD a.
chem'o·ceph'a·lus. Erron. for CHAMECEPHALUS.
chen-. = CHENO-.
Che·na'a·nah (kē·nā'ȧ·nȧ). *Bib.*
Che·na'ni (kē·nā'nī; kĕn'ȧ·nī). *Bib.*
Chen'a·ni'ah (kĕn'ȧ·nī'ȧ). *Bib.*
che·nar'. Var. of CHINAR.

POISONOUS PLANTS

POISON HEMLOCK
(*Conium maculatum*)

NUX VOMICA

POISON IVY
(*Toxicodendron radicans*)

WATER HEMLOCK
(*Cicuta maculata*)

LOCO WEED
(*Astragalus mollissimus*)

POKEWEED

BLACK NIGHTSHADE

JIMSON WEED

CASTOR-OIL PLANT

POISON SUMAC

OPIUM POPPY

MAYAPPLE

SHEEP LAUREL

MONKSHOOD

DEATH CAMASS

BELLADONNA

FOXGLOVE

HENBANE

MESCAL
(*Lophophora williamsii*)

HEMP

UPAS
(*Antiaris toxicaria*)

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3. That which forms; as: **a** A shape around or by which an article is to be shaped, molded, woven, wrapped, pasted, or otherwise constructed. **b** A templet, pattern, gauge, guide, or block by which an article is shaped or bent. **c** A forming die. See DRAWING DIE. **d** A device or machine for bending sheet metal into various forms, as tubes, cylinders. **e** *Ropemaking.* A machine for twisting yarn into strands.

for'mer (fôr'mẽr), *adj. compar.* [A compar. after ME. *formest.* See FOREMOST.] **1.** Preceding in order of time; antecedent; previous; prior; earlier; hence, ancient.

For inquire, I pray thee, of the *former* age. *Job* viii. 8.

2. Near the beginning; preceding; as, the *former* part of a discourse or argument.
3. First mentioned or in order, of two things mentioned or understood; as, of these two evils the *former* is the less.
4. Anterior in place or situation; front; foremost. *Obs.*
Syn. — See ANTECEDENT. **Ant.** — Latter.

for'mer, *n.* [OF. *formoir.* See FIRMER.] A firmer chisel. *Obs.*

for'mer·et (fôr'mẽr·ĕt), *n.* [F. See FORM, *n.*] *Arch.* A wall rib in a roof vaulted with ribs. See ARCHITECTURE, *Illust.* (Gothic, fig. 2).

for'mer·ly (fôr'mẽr·lĭ), *adv.* **1.** In time past; in time at any indefinite distance; of old; heretofore; once.
2. *Obs.* **a** Beforehand; first. **b** In time immediately preceding; just before.

form factor. **a** *Elec.* The ratio of the root-mean-square value of an alternating or pulsating wave to the algebraic mean value taken over a half cycle, beginning with the zero value. If the wave passes through zero more than twice during a single cycle, that zero is taken which gives the largest algebraic mean for the succeeding half cycle. The form factor of a sine wave is 1.111. **b** *Forestry.* The ratio between the volume of a tree and that of a geometric solid, usually a cylinder, having the same diameter and height.

form'ful (fôrm'fo͝ol; -f'l), *adj.* Creative; imaginative; as, a *formful* mind; also, comely; shapely. *Rare.*

form genus. *Biol.* A genus made up of species whose complete development or life history is unknown. The Fungi Imperfecti are made up of form genera. See PERFECT STAGE.

for'mi·ate (fôr'mĭ·āt), *n.* *Chem.* A formate.

for'mic (fôr'mĭk), *adj.* [L. *formica* ant; cf. F. *formique.* See PISMIRE.] **1.** Of or pertaining to ants.
2. *Chem.* Pertaining to or designating an acid, HCO_2H, a colorless, mobile, vesicatory liquid, of pungent odor; methanoic. It occurs naturally in ants and various other insects and in plants, and is produced artificially in many ways, as by the oxidation of methanol. It is the first member of the fatty acids, and is homologous with acetic acid. Formic acid is used as a preservative, in medicine, etc.

For·mi'ca (fôr·mī'kȧ), *n.* [L., ant.] *Zool.* A Linnaean genus formerly including all the ants. As now restricted it contains the common European mound-building wood ant (*F. rufa*) and allied American forms, as *F. exsectoides.*

For·mi'ca (fôr·mī'kȧ), *n.* *Elec.* A trade-mark applied to a laminated phenolic insulating material; hence [*sometimes not cap.*], the material bearing this trade-mark.

for'mi·car'i·an (fôr'mĭ·kâr'ĭ·ăn), *adj.* *Zool.* **a** Pert. to ants or their nests. **b** Of or pert. to the Formicariidae.

for'mi·car'y (fôr'mĭ·kĕr'ĭ *or, esp. Brit.,* -kẽr·ĭ), *n.; pl.* -IES (-ĭz). [ML. *formicarium,* fr. L. *formica* ant.] An ants' nest; the dwelling of a colony of ants; an ant hill.

for'mi·cate (-mĭ·kāt), *v. i.;* -CAT'ED (-kāt'ĕd; -ĭd; 119); -CAT'ING (-kāt'ĭng). [See FORMICATION.] To creep or crawl like ants; to swarm with or as if with ants.

for'mi·cate (-kāt), *adj.* [L. *formica* ant.] Formicine.

for'mi·ca'tion (-kā'shŭn), *n.* [L. *formicatio,* fr. *formicare* to creep, fr. *formica* ant. See FORMIC.] *Med.* A form of paresthesia marked by an irritating sensation resembling that made by the creeping of ants on the skin.

for'mi·ca'tive (fôr'mĭ·kā'tĭv), *adj.* Of the nature of formication.

For·mic'i·dae (fôr·mĭs'ĭ·dē), *n. pl.* [NL., fr. L. *formica* ant.] *Zool.* A family of Hymenoptera including all the ants, or restricted to the more typical forms (as *Formica* and *Camponotus*). — **for'mi·cid** (fôr'mĭ·sĭd), *n. & adj.*

for'mi·cide (fôr'mĭ·sīd), *n.* [L. *formica* ant + *-cide.*] Any substance used for destroying ants.

for'mi·cine (fôr'mĭ·sīn; -sĭn), *adj.* [L. *formicinus.*] Of, pertaining to, or resembling, an ant, esp. one of a subfamily, **For'mi·ci'nae** (-sī'nē), of the Formicidae.

for'mi·civ'o·rous (-sĭv'ō·rŭs), *adj.* [L. *formica* ant + *-vorous.*] *Zool.* Feeding on ants.

For'mi·coi'de·a (-koi'dē·ȧ), *n. pl.* [NL. See FORMICA.] *Zool.* A superfamily of aculeate Hymenoptera consisting of all the ants; — equiv. to *Formicidae* in the broad sense.

for'mi·da·ble (fôr'mĭ·dȧ·b'l), *adj.* [F., fr. L. *formidabilis,* fr. *formidare* to fear, dread; akin to Gr. *mormō* monster, bugbear. Cf. MARMOSET.] Exciting fear or apprehension; impressing dread; adapted to excite fear or deter from approach, encounter, or undertaking; alarming.

They seemed to fear the *formidable* sight. *Dryden.*

Syn. — Dreadful, fearful, terrible, menacing, threatening, redoubtable. — FORMIDABLE, FEARFUL. That is FEARFUL (as here compared; cf. FEARFUL, AFRAID) which inspires fear; that is FORMIDABLE which is redoubtable, menacing, or calculated to deter from action; as, "'Tis a *fearful* spectacle to see so many maniacs dancing in their chains" (*Cowper*); "The first attack was dangerous, but a second must be more *formidable* still" (*id.*).
Ant. — Encouraging, friendly, comforting, soothing.
— **for'mi·da·bil'i·ty** (-bĭl'ĭ·tĭ), *n.* — **for'mi·da·ble·ness,** *n.* — **for'mi·da·bly,** *adv.*

for'min (fôr'mĭn), *n.* [*form-* + *-in.*] *Chem.* **a** Any of three compounds, glyceryl esters of formic acid, distinguished as *monoformin,* $C_3H_5(OH)_2(HCO_2)$, *diformin,* $C_3H_5(OH)(HCO_2)_2$, and *triformin,* $C_3H_5(HCO_2)_3$. The two former are colorless liquids. Triformin is a colorless crystalline solid melting at 18° C. (64° F.), and is theoretically the simplest fat. They are formed when glycerol is heated with formic or oxalic acid. **b** Hexamethylenetetramine.

form'ing, *adj.* That forms or is being formed.

forming die. *Mach.* See DRAWING DIE.

forming press. *Mach.* See PUNCH PRESS.

forming punch. *Mach.* The punch that operates with a forming die. See DRAWING DIE.

form'less, *adj.* Without determinate form; wanting regularity of shape. — **form'less·ly,** *adv.* — **form'less·ness,** *n.*
Syn. — Indeterminate, chaotic, shapeless.

form letter. A letter on a subject of frequent recurrence, as in a business house, which can be sent to different persons without essential change other than in the address.

form of forms. = FIRST CAUSE. See CAUSE, *n.*, 1.

for'mo·lite (fôr'mō·līt), *n.* Also **-lit.** [*form*aldehyde + *-lite.*] *Chem.* A complex, insoluble, resinous condensation product formed when aromatic and other unsaturated cyclic compounds are treated with formaldehyde and concentrated sulphuric acid. This reaction is used as a test (**formolite reaction** *or* **test**) for the presence of unsaturated cyclic compounds in petroleum, the **formolite number** being the number of grams of dried solid produced from 100 cc. of the oil tested. Some formolites are used as plastics.

for'mo·ni'trile (fôr'mō·nī'trĭl; -trēl; -trīl), *n.* [*form-* + *nitrile.*] *Chem.* Hydrocyanic acid.

For·mo'san (fôr·mō'săn), *adj.* [From the island, so named fr. Pg. *formosa* beautiful, fem. of *formoso,* fr. L. *formosus.*] Of or pertaining to the island of Formosa or its inhabitants; also, designating or belonging to their language. See AUSTRONESIAN LANGUAGES, *Table.* — *n.* A native of Formosa; esp., a member of one of the Malayan savage or semisavage tribes of the interior. They are of mixed Mongolian and Indonesian descent. See CHINHWAN.

form'ose (fôr'mōs), *n.* [*form-* + *-ose.*] *Chem.* A mixture of sugars obtained by polymerization of formaldehyde.

form quotient. *Forestry.* The ratio of the breast-high diameter of a tree to the diameter at some higher point.

form'-re·lieve', *v. t.;* -RE·LIEVED'; -RE·LIEV'ING. *Mach.* To relieve (a part of a machine) without changing the form of a specified cross-section through the relieved portion.

forms of action. *Law.* The customary or legal methods of prosecuting actions; specif., the approved classes of actions under the common-law pleading and practice, having their origin in original writs (which see), some of them being developed from these writs, which were unalterable in their forms, by various legal fictions, others, called ***actions on the case,*** from later writs issued under the authority of a statute enacted in the reign of Edward I. The principal common-law forms of action are: assumpsit, covenant, debt, account, trespass, trover, case, detinue, replevin, ejectment, and writ of entry. They were abolished in England by the Judicature Acts, and have been abolished in most States of the United States.

forms of discourse. *Rhet.* The types — exposition, argument, description, and narration — into which discourses are classified according to function.

form species. *Biol.* A species placed in a form genus.

for'mu·la (fôr'mū·lȧ), *n.; pl.* -LAS (-lȧz), -LAE (-lē). [L., dim. of *forma* form, model. See FORM, *n.*] **1.** A set form of words for use in any ceremony; as, a *formula* of faith.
2. A rule prescribing ingredients, with proportions, for the preparation of a compound; a recipe.
3. **a** A prescribed or set form; an established rule; a fixed or conventional method in which anything is to be done, arranged, or said; — often somewhat derogatory. **b** A conventionalized statement used as a working hypothesis to cover complexities of situation or opinion.
4. A number of figures, symbols, etc. associated to express briefly a single concept.
5. *Chem.* A symbolic expression of the composition or constitution of a substance; as, the *formula* for water is H_2O. The present system of symbols, introduced by Berzelius, consists of abbreviations of the names of the elements, with small figures placed at the lower right hand of each to denote the number of atoms (more than one). A chemical formula may express merely the results of a quantitative analysis, as in the ***empirical, minimum,*** or ***composition, formula*** CH for acetylene, from which, knowing the atomic weight of carbon to be 12 and that of hydrogen to be 1, we know that, by weight, acetylene is $^{12}/_{13}$ carbon and $^{1}/_{13}$ hydrogen. The ***molecular formula*** C_2H_2 for acetylene expresses also that the molecular weight is 26 and that the molecule contains 2 atoms of carbon and 2 of hydrogen. The molecular formula is often the same as the empirical formula and is frequently so called. A ***constitutional, graphic, rational,*** or ***structural formula*** adds to the foregoing information more or less about the internal structure of the molecule, or the relations of the atoms to one another. Thus the formula HCCH states the belief that the two carbon atoms of acetylene are each united to the other and also to an atom of hydrogen; the formula HC⋮CH or, otherwise written, H–C≡C–H, introduces further the conception that the two carbon atoms are in a peculiar kind of union (see TRIPLE BOND). This last formula, representing each separate atom and its mode of union, is sometimes called a ***valence formula,*** as distinguished from a ***linkage formula,*** as HCCH, which shows the order in which the atoms are linked, but is noncommittal as to valence. As used by some, a graphic formula is a full valence formula while a rational formula shows the structure only in part, as $C_6H_5NH_2$. It is sometimes necessary to use a ***configurational, stereometric,*** or ***space formula,*** that is, to represent the disposition of the atoms in three-dimensioned space; this is done with the ordinary formulas by special convention, by formulas drawn in perspective, or by the use of models. A ***general formula*** is one applicable to a series of compounds, as MNO_3, where M is any univalent metal; ROH, where R is any of various hydrocarbon radicals; or C_nH_{2n+2}, where *n* may be 1, 2, 3, 4, etc. An ***electronic formula*** is one which shows by plus and minus signs, dots, or the like, the nature of the electronic unions between the atoms, as $\overset{+-}{HCl}$, $H\!:\!\underset{H}{\overset{H}{\ddot{C}}}\!:\!H$. A ***co-ordination formula*** uses brackets to distinguish between an inner and an outer sphere of attraction, as $[PtCl_6]K_2$. Parentheses are used to mark off a particular group in a molecule, as $CH_3CH(CH_3)CH_3$ (in which case the enclosed CH_3 is treated as a branch attached to a chain of three carbon atoms), or to indicate that a group occurs twice or more, as $(CH_3)_2O$. The formula $(C_6H_{10}O_5)_x$ for starch states that it is a polymer (of unknown molecular weight) of the simple formula in the parenthesis.
6. *Eccl.* A written confession of faith; a formal statement of doctrines.
7. *Math.* Any general fact, rule, or principle expressed in algebraic symbols; as, the polyhedron *formula.*
8. *Rom. Law.* Any of the various written forms by which the praetors referred causes to judges or arbitrators for hearing and adjudication upon a summons (*in jus vocatio*) of the defendant into court by the plaintiff. There were two chief classes: one (**for'mu·la in jus con·cep'ta**) stating the claim of the plaintiff in general legal terms; the other (**for'mu·la in fac'tum con·cep'ta**) merely stating facts that justified an award, and specifying the amount of the award. The chief parts of a formula were: the ***nomination*** (L. *nominatio*), naming the judex or recuperators; the ***demonstration*** (L. *demonstratio*), reciting the facts on which the action was based; the ***intention*** (L. *intentio*), stating the plaintiff's claim; the ***adjudication*** (L. *adjudicatio*), directing the judge to apportion shares in property; and the ***condemnation*** (L. *condemnatio*), directing the judge to condemn or absolve the defendant according as he found for or against the plaintiff on the facts alleged. Besides these, a formula might contain a ***prescription*** (L. *praescriptio*), a preliminary clause limiting the scope of the inquiry on behalf of the plaintiff; or an ***exception*** (L. *exceptio*), containing a statement that judgment is to be rendered for the plaintiff only on condition that the judge finds against facts set up by the defendant by way of equitable defense (cf. PRAETORIAN LAW). Further similar limiting conditions arising out of the plaintiff's reply to the exception and the defendant's reply to this reply, etc., were called, respectively: the ***replication*** (L. *replicatio*), on behalf of the plaintiff; ***duplication*** (L. *duplicatio*), on behalf of the defendant; and ***triplication*** (L. *triplicatio*), on behalf of the plaintiff. The principal actions allowed in the formulary system were broadly classified as: (***actiones***) ***in rem*** (see IN REM); ***in personam*** (see IN PERSONAM); ***stricti juris,*** in which the judge was to decide according to the strict legal rules without reference to equitable considerations; and ***bonae fidei,*** in which the judge was to condemn to what was required by good faith.

for'mu·la·ble (fôr'mū·lȧ·b'l), *adj.* That can be formulated.

for'mu·la'ic (fôr'mū·lā'ĭk), *adj.* Of the nature of a formula.

For'mu·la of Con'cord (kŏng'kôrd; kŏn'-). *Eccl. Hist.* The second major division of the *Book of Concord* (1580), published to end the bitter controversies between Flacians, Philippists, and other Lutheran groups.

for'mu·lar (fôr'mū·lẽr), *adj.* **1.** Formal; proper; regular. **2.** Of or pertaining to formulas; formulary.

for'mu·lar, *n.* [F. *formulaire.*] A formulary; a model. *Obs.*

for'mu·lar·ism (-ĭz'm), *n.* The practice of following or adhering strictly to set formulas. — **for'mu·lar·ist** (-ĭst), *n. & adj.* — **for'mu·lar·is'tic** (-ĭs'tĭk), *adj.*

for'mu·lar·ize (fôr'mū·lẽr·īz), *v. t.;* -IZED (-īzd); -IZ'ING (-īz'ĭng). To state in a formula; to formulate. — **for'mu·lar·i·za'tion** (-ĭ·zā'shŭn; -ī·zā'shŭn), *n.*

for'mu·lar'y (-lẽr'ĭ *or, esp. Brit.,* -lẽr·ĭ), *n.; pl.* -IES (-ĭz). [F. *formulaire.*] **1.** A book or document containing stated and prescribed forms, as of oaths, declarations, prayers, medical formulas, etc.; a collection or system of formulas.
2. A prescribed form or model; formula.
3. *Pharm.* A book containing a list of medicinal substances and formulas for making medicinal preparations.
☞ The *National Formulary,* issued by the American Pharmaceutical Association, is quoted in Federal and State laws as having equal authority with the *United States Pharmacopoeia.*

for'mu·lar'y, *adj.* Of or pert. to formulas or to a formulary system; of the nature of a formula; prescribed.

for'mu·late (fôr'mū·lāt), *v. t.;* -LAT'ED (-lāt'ĕd; -ĭd; 119); -LAT'ING (-lāt'ĭng). To reduce to, or express in or as in, a formula; to put in a systematized statement or expression.

for'mu·la'tion (-lā'shŭn), *n.* Act or result of formulating.

for'mu·la'tor (fôr'mū·lā'tẽr), *n.* One who formulates.

for'mu·la·to'ry (fôr'mū·lȧ·tō'rĭ *or, esp. Brit.,* -tẽr·ĭ), *adj.* Of or pert. to formulation. *Rare.*

for'mule (fôr'mūl), *n.* [F.] A formula. *Obs.*

for'mule, *v. t.* [F. *formuler.*] To formulate. *Rare.*

for'mu·lism (fôr'mū·lĭz'm), *n.* Attachment to, or reliance on, formulas; a system of formulas. — **for'mu·list** (-lĭst), *n.* — **for'mu·lis'tic** (-lĭs'tĭk), *adj.*

for'mu·lize (-mū·līz), *v. t.;* -LIZED (-līzd); -LIZ'ING (-līz'ĭng). To formulate. — **for'mu·li·za'tion** (-lĭ·zā'shŭn; -lī·zā'shŭn), *n.* — **for'mu·liz'er** (fôr'mū·līz'ẽr), *n.*

form'work' (fôrm'wûrk'), *n.* *Civ. Engin.* A form.

for'myl (fôr'mĭl), *n.* [*form-* + *-yl.*] *Chem.* **a** The radical (H.C:O) of formic acid. See BENZOYL. This radical (CHO) when attached to carbon is also denoted by the prefix *aldehydo-.* **b** Formerly, the radical methenyl, CH.

for'myl·ate (fôr'mĭ·lāt), *v. t.;* -AT'ED (-lāt'ĕd; -ĭd; 119); -AT'ING (-lāt'ĭng). To introduce formyl into. — **for'myl·a'tion** (-lā'shŭn), *n.*

For'nax (fôr'năks), *n.* [L., furnace, oven. See FURNACE.] **1.** *Rom. Relig.* Goddess of ovens, whose feast, **For'na·ca'li·a** (fôr'nȧ·kā'lĭ·ȧ), was held in February — one day for the state, on successive days for the different curiae, and on Feb. 17, in the ***Stultorum feriae*** (festival of fools), for all who had missed their proper day.
2. A southern constellation between Cetus and Eridanus.

for·nax'id (fôr·năk'sĭd), *n.* [See 1st -IN.] One of the meteors whose radiants are in the constellation Fornax.

for·nent' (fŏr·nĕnt'), *prep.* Also **for·nenst'** (-nĕnst'). [*fore,* adv. + *anent.*] *Now Chiefly Dial.* **a** Opposite to; facing; over against; alongside. **b** For; in exchange for. **c** Opposed to; against. **d** Toward; in connection with.

for'ni·cal (fôr'nĭ·kăl), *adj.* Of or pertaining to a fornix.

for'ni·cate (fôr'nĭ·kāt), *v. i.;* -CAT'ED (-kāt'ĕd; -ĭd; 119); -CAT'ING (-kāt'ĭng). [LL. *fornicatus,* past part. of *fornicari* to fornicate, fr. *fornix, -icis,* brothel, vault, arch; akin to L. *firmus* strong. See FIRM.] To commit fornication.

for'ni·cate (-kāt), *adj.* [L. *fornicatus,* fr. *fornix, -icis,* an arch, vault.] **1.** Vaulted like an oven or furnace; arched. **2.** *Bot.* Having scalelike arched appendages (*fornices*). See FORNIX, 2.

for'ni·cat'ed (-kāt'ĕd; -ĭd; 119), *adj.* Fornicate.

for'ni·ca'tion (-kā'shŭn), *n.* [OF., fr. LL. *fornicatio,* fr. *fornicari.* See 1st FORNICATE.] **1.** Illicit sexual intercourse on the part of an unmarried person; the act of such illicit sexual intercourse between a man and a woman as does not by law amount to adultery (which see). *Fornication* is sometimes, esp. in the Bible, used to include all sexual intercourse except between husband and wife or concubine; but it is usually distinguished from adultery, and sometimes from incest. In England fornication has (except for a short period) been cognizable as an offense only in the ecclesiastical courts under the canon law since about the 12th century, not being a common-law offense. It is punishable by statute in some States of the United States.
2. Figuratively, esp. in Scripture, idolatry.

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former adjudication. *Law.* See RES ADJUDICATA.
for'mer·ness, *n.* See -NESS.
Former Prophets. See OLD TESTAMENT.
-for'mes. See -FORM.
formic aldehyde. *Chem.* = FORMALDEHYDE.
for·mi'can (fôr·mī'kăn; fôr'mĭ-), *adj.* [L. *formica* ant.] = FORMICINE.
For'mi·ca'ri·ae (fôr'mĭ·kā'rĭ·ē; 79), *n. pl.* [NL.] *Zool.* Syn. of FORMICOIDEA.
For'mi·ca·ri'i·dae (-kȧ·rī'ĭ·dē), *n. pl.* [NL. See FORMICA.] *Zool.* See ANT BIRD. — **for'mi·car'i·oid** (-kâr'ĭ·oid; 79), *adj. & n.* — **for'mi·car'oid** (-oid), *adj.*
for'mi·car'i·um (-kâr'ĭ·ŭm), *n.; pl.* -IA (-ȧ). [ML.] *Zool.* = FORMICARY.
for'mice (fôr'mĭs), *n.* [L. *formica.*] An ant. *Obs.*
for·mic'i·cide (fôr·mĭs'ĭ·sīd), *n.* = FORMICIDE.
For'mi·ci'na (fôr'mĭ·sī'nȧ), *n. pl.* [NL.] Syn. of FORMICOIDEA.
for'mi·civ'o·ra (-sĭv'ō·rȧ), *n.* [NL. See FORMICIVOROUS.] *Zool.* Syn. of MICRORHOPIAS.
for'mi·da·bl. Formidable. *R. S.*
for'mi·ty. † FRUMENTY.
for'mi·ty, *n.* Quality of having form. *Obs.*
form'ly, *adv.* Formally. *Obs.*
for'mo- (fôr'mō-). *Chem.* = FORM-.
Form of Concord. = FORMULA OF CONCORD.
For'mol (fôr'mōl; -mŏl), *n.* [*form-* + 1st *-ol.*] See FORMALDEHYDE.
For'mor. Var. of FOMOR.
Formosan lacquer. See LACQUER, *n.*, 2 b.
Formosa oolong. See TEA.
for·mose', *adj.* [L. *formosus.*] *Obs.* Beautiful. — **for·mos'i·ty,** *n.*
form'ous, *adj.* Formose. *Obs.*
form·ox'ime (fôr·mŏk'sēm; -sĭm), *n.* [*form*aldehyde + *oxime.*] *Chem.* = FORMALDOXIME.
form'y, *adj.* *Her.* = FORMÉE.
for'myl·al (fôr'mĭ·lăl), *n.* *Chem.* = 3d FORMAL b.
fornace. † FURNACE.
for·nac'ic (fôr·năs'ĭk), *adj.* [L. *fornax, -acis,* a furnace.] Of or pertaining to a furnace. *Rare.*
forn·cast', *v. t.* [ME. *foren* before + *cast.*] To premeditate. *Obs.*
forne, *prep.* Before. *Obs.*
forne, *adv.* [AS. *foran, forn, forne,* in front.] In front; to the front; formerly. *Obs.* — *adj.* Anterior; fore; former. *Obs.*
fornes, forneys. † FURNACE.

so·lu′tion (sō-lū′shŭn), *n.* [ME. *solucion*, fr. OF. *solucion* (F. *solution*), fr. L. *solutio*, fr. *solvere*, *solutum*, to loosen, dissolve. See SOLVE.] **1.** Act or process of solving a problem, etc., or the fact or state of its being solved; also, a means by which a problem, etc., may be solved; explanation; clearing up; denouement.

A drama, not untragical, crowding toward *solution*. *Carlyle.*

2. A releasing; deliverance; discharge. *Obs.*
3. A breaking; a disruption; a breach; — chiefly in phrases ***solution of continuity***, ***connection***, or the like.
4. A breaking up or dispersion; disintegration.
5. The condition of being dissolved, or reduced to a liquid or held suspended in a solvent; a state of fluidity, diffusion, of the like. See sense 9. Also, a liquid containing a dissolved substance. Cf. sense 8 **c**.
6. *Alchemy.* The process of dissolving or fusing materials through the agency of liquids or heat.
7. *Math.* The process or result of loosing or dissolving connections formed by mathematical operations among symbols, so as to exhibit these symbols freed from such connections and operations. Thus, to solve $ay^2 + 2by + c = 0$ (as to y) means to exhibit y as one side of an equation, unconnected with other symbols; to solve the differential equation $A\frac{d^2y}{dx^2} + 2B\frac{dy}{dx} + C = 0$ means to exhibit x and y connected by an equivalent equation freed from differentiations. A ***general solution*** of an ordinary differential equation contains arbitrary constants equal in number to the order of the equation. ***Particular solutions*** result from giving particular values to these arbitrary constants. A ***singular solution*** is neither general nor particular but may be the envelope of the general solution.
8. *Med.* **a** The termination of a disease; resolution. **b** A crisis. **c** A liquid medicine or preparation (usually aqueous) with the solid ingredients soluble.
9. *Physical Chem.* **a** The act or process by which a substance, whether solid, liquid, or gaseous, is homogeneously mixed with a liquid (or, by extension, a solid or gas) called the *solvent;* also, the state of being so mixed. Solution may be accompanied by evolution or absorption of heat. So-called ***chemical solution*** is that accompanied by clearly marked chemical change, as when silver is dissolved in nitric acid; in this case the substance in solution is not silver, but silver nitrate. **b** A homogeneous mixture formed by the above process. It is typically liquid but may be solid, as in an alloy, or gaseous. (Gaseous solutions are usually called mixtures of gases.) In true solutions the molecules of the dissolved substance (called the *solute*) are dispersed among those of the solvent. The concentration can undergo continuous variation within certain limits. Solutions have special properties. See OSMOSIS, FREEZING POINT. In so-called colloidal solutions the dispersed particles are larger. See COLLOID, *n.*, 1.
10. *Rom. & Civil Law.* Discharge of a contract by performance, esp. payment; performance of an obligation.
Syn. — Analysis, disentanglement, answer.

so·lu′tion (sō-lū′shŭn), *v. t.* To apply a solution to; esp., to cement by rubber solution.
so·lu′tion·al (-ăl; -′l), *adj.* Of or pertaining to a solution.
so·lu′tion·er (-ēr), *n.* A workman who solutions; esp., a cementer.
so·lu′tion·ist (-ĭst), *n.* **a** = SOLUTIONER. **b** One who works out solutions of problems.
solution of connection. See SOLUTION, 3.
solution of continuity. **a** See SOLUTION, 3. **b** *Surg.* A fracture or laceration.
solution plane. *Cryst.* A direction in a crystal of relatively easy solubility, as when the substance is under great pressure. Chemical action along solution planes in minerals in rocks has often resulted in schillerization.
solution pressure. *Physics & Chem.* The pressure or tension by virtue of which the particles of a dissolving substance are driven into solution. When solution pressure and osmotic pressure are equal, equilibrium is established and the concentration of the solution becomes constant. The solution pressure of metals is a cause of the electric current from a primary battery.
solution tension. = SOLUTION PRESSURE.
So·lu′tre·an (sō-lū′trē-ăn), *adj.* Designating, or pertaining to, an epoch of paleolithic culture named from the type station, Solutré, Department of Saône-et-Loire, France, where characteristic remains were discovered. In age it follows the Aurignacian. It is distinguished by beautifully chipped stone implements. See PALEOLITHIC.
solv′a·ble (sŏl′vȧ-b′l), *adj.* [Cf. F. *solvable*. See SOLVE; cf. SOLUBLE, SOLVIBLE.] **1.** Susceptible of solution, or of being solved, resolved, or explained.
2. Able to pay one's debts; solvent. *Obs.*
3. *Rare.* **a** Payable. **b** Soluble. **c** Reducible.
— **solv′a·bil′i·ty** (-bĭl′ĭ-tĭ), **solv′a·ble·ness**, *n.*
solvable group. *Math.* A finite group containing a series of invariant subgroups such that the last of the series is the identity and the index of each of these subgroups under the next larger subgroup is a prime number.
sol′vate (sŏl′vāt), *n.* [*solve* + *-ate.*] *Physical Chem.* A compound of a dissolved substance with the solvent.
solvate theory. *Physical Chem.* The theory that when a substance dissolves, the molecules associate with one or more of the solvent molecules.
sol·va′tion (sŏl-vā′shŭn), *n.* *Physical Chem.* Formation of a solvate.
Sol′vay proc′ess (sŏl′vā). [After Ernest *Solvay* of Couillet, near Charleroi, Belgium, the inventor.] A process for making soda from common salt, based on the sparing solubility of sodium bicarbonate, which is precipitated when carbon dioxide is passed into strongly ammoniacal brine, leaving ammonium chloride solution. The bicarbonate is converted into carbonate by calcining. Cf. LEBLANC PROCESS.
Solvay tower. In the Solvay process, a tower with shelves, down which the ammoniacal brine flows to meet the carbon dioxide rising from the base.
solve (sŏlv), *v.*; SOLVED (sŏlvd); SOLV′ING. [L. *solvere*, *solutum*, fr. a prefix, *so-* expressing separation (cf. SOBER) + *luere* to loosen. See LOSE; cf. ABSOLVE, DISSOLVE, RESOLVE.] *Transitive* **1.** To break; to set loose or free. *Obs.*
2. To clear up (what is obscure, or difficult to understand); to unfold, explain; resolve, to work out to a result or conclusion, to find the solution of, as, to *solve* a mystery, a difficulty, a problem.
3. To pay (as a debt); to free oneself of (an obligation).
4. To dissolve as by dispersing or melting. *Now Rare.*
——, *Intransitive:* To solve, esp. to dissolve, something.
Syn. — Unravel, disentangle. **Ant.** — Complicate, involve.
Sol′veig (sŏl′vāg), *n.* A character in Ibsen's poem *Peer Gynt.* She is the woman through whom salvation for the hero is possible.
sol′ven·cy (sŏl′vĕn-sĭ), *n.*; *pl.* -CIES (-sĭz). [See SOLVENT.] Quality or state of being solvent.
sol′vend (sŏl′vĕnd), *n.* [L. *solvendus* to be loosened or dissolved, fr. *solvere*. See SOLUTION.] A dissolved substance in a solution. Cf. SOLVENT. *Now Rare.*
sol′vent (sŏl′vĕnt), *adj.* [L. *solvens*, *-entis*, pres. part. of *solvere*, to loosen, discharge, pay. See SOLVABLE.] **1.** Able or sufficient to pay all legal debts; as, a *solvent* merchant; the estate is *solvent*.
2. That dissolves or can dissolve; producing a solution or homogeneous mixture; fusing; as, *solvent* fluids; the *solvent* action of water or of certain ideas.
3. That explains or offers a solution; clarifying.
— **sol′vent·ly**, *adv.*
sol′vent (sŏl′vĕnt), *n.* **1.** A substance (usually liquid) capable of, or used in, dissolving something; as, water is the appropriate *solvent* of most salts, alcohol of resins, ether of fats. See SOLUTION, 9.
2. Something which solves; a solution; as, no *solvent* has been found for the industrial stagnation.
3. Something that dissipates, disintegrates, etc.; as, ridicule as a *solvent* of prejudice.
solv′er (sŏl′vẽr), *n.* One who or that which solves.
sol·vol′y·sis (sŏl-vŏl′ĭ-sĭs), *n.* [See SOLVENT; -LYSIS.] *Physical Chem.* Decomposition of a dissolved substance, involving addition of the elements of the solvent. Cf. HYDROLYSIS. — **sol′vo·lyt′ic** (sŏl′vō-lĭt′ĭk), *adj.*
sol′vo·lyze (sŏl′vō-līz), *v. t.*; -LYZED (-līzd); -LYZ′ING (-līz′ĭng). *Chem.* To subject to solvolysis.
solvs′berg·ite (sŭlvz′bĕrg-īt), *n.* [G. *sölvsbergit*, fr. name of a mountain in Norway.] *Petrog.* A dike rock composed of alkali feldspars and aegirite and intermediate between grorudite and tinguaite.
Sol′y·ma (sŏl′ĭ-mȧ), *n.* [Gr.] Jerusalem.
Sol′y·mae′an (-mē′ăn), *adj.* Of or pertaining to Jerusalem.
so′ma (sō′mȧ), *n.* [Skr.; akin to Av. *haoma*.] **1.** *Bot.* An East Indian leafless vine (*Sarcostemma acidum*), family Asclepiadaceae, yielding a somewhat acidulous milky juice.
2. *Hinduism.* **a** An intoxicating drink of ancient India, thought to be prepared from the juice of the above plant, and used in sacrificial rites, esp. in honor of Indra and other gods; homa. **b** [*cap.*] This liquor personified and worshiped as a god. **c** In Vedic ritual, the sacrificial rite of offering clarified butter (ghee) in the sacred fire.
so′ma (sō′mȧ), *n.*; *pl.* SOMATA (-tȧ). [NL., fr. Gr. *sōma* body.] *Anat. & Zool.* **a** The whole axial portion of an animal — head, neck, trunk, and tail. **b** All of an organism except the germ cells.
-so′ma. [NL.] A combining form from Greek *sōma*, meaning *body*, used to denote: **a** *Biol.* = 3d -SOME. **b** *Med.* *Size* or *form of body*, or *a monster fetus, of a* (specified) *type*, as in meso*soma*. **c** *Zool.* *Creatures having a* (specified) *type of body;* — in classificational names, as in Cbaeto*soma*, phyllo*soma*.
so′ma·cule (sō′mȧ-kūl), *n.* *Biol.* A pangen.
so′mal (sō′măl), *adj.* Somatic.
So·mal′ (sō-mäl′), *n.* = SOMALI.
So·ma′li (sō-mä′lē), *n.*; *pl.* SOMALIS (-lēz). **1.** One of a Hamitic race of Somaliland, many tribes of which are intermixed with Negro and Arab blood. They are very tall and dark, with well-formed features and martial carriage. Nearly all are fanatical Mohammedans.
2. The language of the Somalis. See HAMITIC LANGUAGES **b**.
so′ma·plasm (sō′mȧ-plăz′m), *n.* *Biol.* Somatoplasm.
So·mas′chi·an (sō-măs′kĭ-ăn), *n.* *R.C.Ch.* A member of a religious order established in 1532 at Somascha, Italy, and engaged in charitable work. — **So·mas′chi·an**, *adj.*
so′ma·tas·the′ni·a (sō′mȧ-tăs-thē′nĭ-ȧ; -tăs′thē-nī′ȧ), *n.* [NL., fr. *somat-* + *asthenia*.] *Med.* Chronic bodily weakness, esp. that associated with low blood pressure.
‖**so′ma·tén′** (sō′mä-tān′), *n.*; *pl.* -TENES (-tā′nās). [Sp.] *Sp. Hist.* A nonmilitary body of armed townsmen for local defense and for maintenance of order.
So′ma·te′ri·a (sō′mȧ-tē′rĭ-ȧ), *n.* [NL., fr. Gr. *sōma* body + *erion* wool (taken in the sense of down).] *Zool.* The principal genus of eider ducks.
so·mat′ic (sō-măt′ĭk), *adj.* [Gr. *sōmatikos*, fr. *sōma* the body.] **1.** Of, pertaining to, or affecting the body or, esp., the soma; physical; corporeal; as, *somatic* posture, attitudes, or cells.
2. *Anat. & Embryol.* **a** Of or pertaining to the wall of the body, esp. as distinguished from the viscera; somatopleuric; parietal. **b** Of or pertaining to the body, or trunk.
3. *Psychol.* Of or pertaining to the body, as distinguished from the mind, the brain, or the central nervous system; as, *somatic* vs. psychical reactions.
so·mat′i·cal (sō-măt′ĭ-kăl), *adj.* Somatic. — **so·mat′i·cal·ly**, *adv.*
somatic cavity. *Zool.* The coelom; the body cavity.
somatic cell. One of the cells of the body of an individual which become differentiated and compose the tissues, organs, and parts of that individual; — disting. from *germ cell.* When the individual dies, its somatic cells must sooner or later die, but the substance of some germ cells must have continuous life as long as the race exists.
somatic death. See DEATH, *n.*, 1. *Citation.*
so·mat′i·co- (sō-măt′ĭ-kō-). A combining form for *somatic*, denoting *somatic and*, as in **so·mat′i·co·splanch′nic**, **so·mat′i·co·vis′cer·al.**
so′ma·tism (sō′mȧ-tĭz′m), *n.* Materialism.
so′ma·tist (-tĭst), *n.* **1.** A materialist.
2. *Psychiatry.* One who seeks the causes of mental disorders in brain lesions and other physical conditions.
so′ma·to- (sō′mȧ-tō-), **somat-**. A combining form, Greek *somato-*, *somat-*, from *soma*, *somatos*, meaning *body*, as in *somatology*; specif., *soma*, *somatic*, as in *somatocyst*, *somatoderm*.
so′ma·to·chrome′ (-krōm′), *n.* [*somato-* + *-chrome.*] Any nerve cell having a distinct cytoplasm around its nucleus, and taking a deep stain with basic aniline dyes.
so′ma·to·cyst′ (-sĭst′), *n.* [*somato-* + *-cyst.*] An air cavity in the float of a siphonophoran. — **so′ma·to·cys′tic** (-sĭs′tĭk), *adj.*
so′ma·to·derm′ (sō′mȧ-tō-dûrm′), *n.* [*somato-* + *-derm.*] *Embryol.* The somatic stratum of the mesoderm.
so′ma·to·ge·net′ic (-jē-nĕt′ĭk), *adj.* *Zool.* Somatogenic.
so′ma·to·gen′ic (-jĕn′ĭk), *adj.* [*somato-* + *-genic.*] *Biol.* Originating in the somatic cells.
so′ma·tog·no′sis (-tŏg-nō′sĭs), *n.* Perception or diagnosis of bodily conditions. — **so′ma·tog·nos′tic** (-nŏs′tĭk), *adj.*
so′ma·tol′o·gy (-tŏl′ō-jĭ), *n.* [*somato-* + *-logy.*] **1.** Doctrine or science of general properties of material substances.
2. *Anthropol.* The comparative study of the structure, functions, and development of the human body; — practically restricted to statistical treatments of bodily measurements and to comparative descriptions of those traits which chiefly distinguish races and populations. Cf. CRANIOMETRY. — **so′ma·to·log′ic** (-tō-lŏj′ĭk), **-i·cal** (-ĭ-kăl), *adj.* — **so′ma·to·log′i·cal·ly**, *adv.* — **so′ma·tol′o·gist** (-tŏl′ō-jĭst), *n.*
so′ma·tome (sō′mȧ-tōm), *n.* [Gr. *sōma* body + *-tome.*] A somite. — **so′ma·tom′ic** (-tŏm′ĭk), *adj.*
so′ma·to·phyte′ (sō′mȧ-tō-fīt′), *n.* [*somato-* + *-phyte.*] *Bot.* A plant composed of somatic cells which develop chiefly into adult tissue. All higher plants are of this type. Cf. ASOMATOPHYTE. — **so′ma·to·phyt′ic** (-fĭt′ĭk), *adj.*
so′ma·to·plasm (-plăz′m), *n.* [*somato-* + *-plasm.*] *Biol.* Protoplasm of somatic cells. Cf. GERM PLASM.
so′ma·to·pleure′ (-ploor′; 242), *n.* [*somato-* + Gr. *pleura* side.] *Embryol.* In the embryos of craniate vertebrates, the outer, or parietal, of the two layers into which the lateral plate of the mesoblast splits, together with the epiblast investing it externally. The inner, or visceral, layer of mesoblast formed at the same time, together with the underlying hypoblast, is called the *splanchnopleure;* the cleft between them forms the true body cavity, or coelom. The somatopleure forms the body wall (and in amniote vertebrates the true and false amnion); the splanchnopleure, the walls of most of the alimentary canal. The terms *somatopleure* and *splanchnopleure* are extended to similar structures in the embryos of certain other animals, as insects and some other arthropods. — **so′ma·to·pleu′ral** (-ploor′ăl; 242), *adj.* — **so′ma·to·pleu′ric** (-ĭk), *adj.*
so′ma·to·psy′chic (-sī′kĭk), *adj.* [*somato-* + *psychic.*] *Psychol.* Concerned with the individual's notions regarding his own body; as, a *somatopsychic* delusion. Cf. ALLOPSYCHIC.
so′ma·to·splanch′nic (-splăngk′nĭk), *adj.* [*somato-* + *splanchnic.*] *Anat.* **a** Pertaining to or involving the somatic and splanchnic layers of the mesoderm. **b** Of or pertaining to the body and the viscera.
so′ma·tot′ro·pism (-tŏt′rō-pĭz′m), *n.* [*somato-* + *-tropism.*] *Bacteriol.* Selective localization of parasitic organisms in the somatic, or body, cells. Cf. NEUROTROPISM. — **so′ma·to·trop′ic** (-tō-trŏp′ĭk), *adj.* — **so′ma·to·trop′i·cal·ly** (-ĭ-kăl-ĭ), *adv.*
-som′a·tous (-sŏm′ȧ-tŭs; -sō′mȧ-). [See SOMATO-.] *Zool.* A combining form, Greek *-sōmatos*, from *sōma*, body, meaning *-bodied*, as in hetero*somatous*. Corresponding classificational names are formed in *-somata*, as in Hetero*somata*.
som′ber, som′bre (sŏm′bẽr), *adj.* [F. *sombre*, prob. fr. VL. *subumbrare* to put in the shade, fr. L. *sub* under + *umbra* shade; cf. Sp. *sombra* shade. See UMBRAGE.] **1.** So shaded or full of shadows as to be dark and gloomy; without light or brightness; as, a *somber* forest, sky, room, or morning.
2. Melancholy; grave; depressing; as, *somber* thoughts, expressions, or music; a *somber* beauty.
3. Of color or a color, soberly dark; of a dull or heavy east or shade; dark-colored; as, a *somber* brown; *somber* silks.
☞ COMBINATIONS (all adjectives) are:

somber-clad	somber-looking	somber-seeming
somber-colored	somber-minded	somber-toned

— **som′ber·ly, som′bre·ly**, *adv.* — **som′ber·ness, som′bre·ness**, *n.*
som′ber, som′bre, *v. t. & i.* To make or become somber.
som′ber, som′bre, *n.* Gloom. *Rare.*
som′ber·ish, som′bre·ish (sŏm′bẽr-ĭsh), *adj.* Somewhat somber.
som·bre′rite (sŏm-brā′rīt), *n.* Guano from Sombrero.
som·bre′ro (sŏm-brā′rō), *n.* [Sp., fr. *sombra* shade. See SOMBER.] **1.** An Oriental sunshade. *Obs.*
2. A kind of broad-brimmed hat, usually of felt, orig. worn in Spain and in Spanish America. Cf. SERVICE CAP.

Sombrero.

som·bre′roed (-rōd), *adj.* Wearing a sombrero.
som′brous (sŏm′brŭs), *adj.* [Cf. obs. F. *sombreux.*] Somber; characterized by or manifesting somberness. — **som′brous·ly**, *adv.* — **som′brous·ness**, *n.*
some (sŭm; 71), *adj.* [ME. *som*, *sum*, fr. AS. *sum;* akin to OS., OFris., & OHG. *sum*, MD. *som*, ON. *sumr*, Dan. *somme* (pl.), Goth. *sums*, Skr. *sama* any, every, and E. *same*. See SAME; cf. 1st & 2d -SOME.] **1.** A certain; one; now, always, a certain unknown, undetermined, or unspecified; — sometimes used as a correlative to *another* or *other;* as, *some* person knocked at my door; he is spending the summer at *some* beach or another; *some* day or other make us a visit.
2. That is of an unspecified but appreciable or not inconsiderable quantity, amount, extent, degree, etc.; more than a little; that are in number at least, or, often, more than, a few; as, we have *some* good honey; there is *some* heat in this radiator; they have *some* land by the river.

Captain Kemble, a Boston citizen of *some* weight and fortune. *Agnes Repplier.*

3. Being one, a part, or an unspecified number of the class, group, species, collection, range of possibilities, etc., that is named in the noun modified or is contextually implied; that is an unspecified or (*Colloq.*) ill-defined, individual, kind, example, etc., of; as, this criticism applies to *some* students only; *some* gems are hard but the majority are soft; protective coloring occurs in *some* birds; the hartebeest is *some* African animal; will *some* man or men (of those present) help me?
4. About; more or less; — used adverbially before a numeral; as, a village of *some* eighty houses; *some* two or three persons; — formerly before a singular noun denoting time or distance. "*Some* hour hence." *Shak.*
5. That is worthy of notice or consideration; far from negligible; more or less important, striking, etc.; as, that was *some* race, match, party. *Slang, Chiefly U. S.*
6. *Logic.* That is one of, one kind of, or an undetermined proportion of; often, being at least one or a few and, it may

‖**so·lu′ti·o** (sō-lū′shĭ-ō), *n.* [L.] *Rom. & Civil Law* = SOLUTION, 10.
so·lu′tion-proof′ (-proof′), *adj.* See -PROOF.
sol′u·tiv. Solutive. *Ref. Sp.*
sol′u·tive (sŏl′ū-tĭv), *adj.* [ML. *solutivus*.] Tending to dissolve; loosening; laxative. — *n.* A laxative or cathartic. *Both Obs.*
sol′u·to′ry, *adj. & n.* = SOLUTIVE. *Obs.* [*of* SOLUTREAN.]
So·lu′tri·an (sō-lū′trĭ-ăn). Var.
solv. Solve. *Ref. Sp.*
solvd. Solved. *Ref. Sp.*
solve′ment, *n.* [*solve* + *-ment.*] = SOLUTION, 3.
solvent naphtha. See NAPHTHA, 3.
sol′vent-proof′ (-proof′), *adj.* See -PROOF. [SOLVABLE.]
solv′i·ble (sŏl′vĭ-b′l). Var. of
‖**sol′vi·tur am′bu·lan′do.** [L.] It is solved by walking; the problem is solved by experiment or actual performance, — from the story that Diogenes, by rising and walking, confuted Zeno, the Eleatic, who argued that all things are at rest.
soly. † SOLELY.
solybubbe. † SILLABUB.
solyn, soleyne. † SULLEN.
so′maes·the′si·a, -the′sis, -thet′ic. Vars. of SOMESTHESIA, etc.
so·mal′. Var. of SAMAJ.
soma plant. = SOMA, 1.
somare. † SUMMER.
So·masque′, *n.* A Somaschian. *Obs.*
so′mas·the′ni·a (sō′măs-thē′nĭ-ȧ; -thē-nī′ȧ), *n.* = SOMATASTHENIA.
somat-. = SOMATO-.
-so′ma·ta (-sō′mȧ-tȧ). = -SOMA o. See -SOMATOUS.
so·mat′ics (sō-măt′ĭks), *n.* = SOMATOLOGY, 1. See -ICS.
som′a·ti·za′tion (sŏm′ȧ-tĭ-zā′shŭn; sō′mȧ-), *n.* [*somat-* + *-ize* + *-ation.*] *Psychoanalysis.* = CONVERSION, 11.
somd. † SUMMED.
somdel, somdiel. † SOMEDEAL.
some. † SAME, SUM.

Webster's New International Dictionary, *Second Edition*

A Composite Page of Terms in Electricity, Physics, and Allied Subjects

air′foil′ (âr′foil′), *n.* [*air* + *foil.*] *Aeronautics.* Any surface, flat or curved, as a wing, aileron, or rudder, designed to obtain reaction upon its surfaces from the air through which it moves. Cf. DRAG, *n.;* 3d LIFT, 10.

cam′ber (kăm′bẽr), *n.* [OF. *cambre* bent, curved, fr. L. *camur.* See CHAMBER.]
6. *Aeronautics.* The convexity or rise of the curve of an airfoil from its chord; — usually expressed as the ratio of the maximum departure of the curve from the chord to the length of the chord. ***Upper camber*** is the camber of the top surface of an airfoil; ***lower camber***, the camber of the bottom surface; ***mean camber*** is the mean of these two.

chord (kôrd), *n.* [L. *chorda.* See CORD.]
2. *Aeronautics.* The line of a straightedge brought into contact with the lower surface of an airfoil section at two points. In the case of an airfoil having double convex camber, it is the straight line joining the leading and trailing edges.

stag′ger, *n.*
3. *Aeronautics.* The amount of advance of the entering edge of an upper wing of a biplane, triplane, or multiplane, over that of a lower, expressed as percentage of gap. It is considered *positive* when the upper wing is forward, and is measured from the entering edge of the upper wing along its chord to the point of intersection of this chord with a line drawn perpendicular to the chord of the upper wing at the entering edge of the lower wing, all lines being drawn in a plane parallel to the plane of symmetry.

hel′i·cop′ter (hĕl′ĭ·kŏp′tẽr), *n.* [F. *hélicoptère*, fr. Gr. *helix, -ikos,* spiral + *pteron* wing. See HELIX; FEATHER.] *Aeronautics.* A form of aircraft whose support in the air is derived solely from the reaction of a stream of air driven downwards by propellers revolving around a vertical axis.

Im′mel·mann turn (ĭm′ĕl·män). [After Max *Immelmann* (1890–1916), Ger. aviator.] *Aviation.* A maneuver in which an airplane is first made to complete half of a loop and is then rolled half of a complete turn; reverse turn.

induction compass. *Aeronautics.* A compass the indications of which depend on the current generated in a coil revolving in the earth's magnetic field. It is free of nearly all the errors of a magnetic needle.

ceil′ing (sēl′ĭng), *n.* [See CEIL, *v. t.*]
4. *Aeronautics.* **a** The maximum height above sea level at which a given airplane could maintain horizontal flight, assuming standard air conditions; — called specifically the ***absolute ceiling.*** **b** The height above sea level, assuming standard air conditions, at which a given airplane ceases to be able to rise at a rate higher than a small specified one (100 feet per minute in the United States and England); — called specif. the ***service ceiling.***

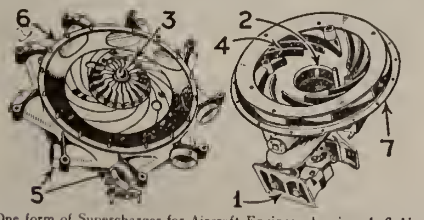
a′er·o·do·net′ics, *or* **a′ër·o-** (-dō·nĕt′ĭks), *n.* [*aero-* + Gr. *donētos* shaken, fr. *donein* to shake. See -ICS.] *Aeronautics.* The science of gliding and soaring flight. — **a′er·o·do·net′ic,** *or* **a′ër·o-** (-ĭk), *adj.*

phugoid theory. *Aeronautics.* The theory which deals with the longitudinal stability and the form and equations of the flight path of a glider.

stream′line′, *adj.* Of or pert. to a streamline; designating a motion or flow that is free from turbulence, like that of a free particle moving in a streamline; hence, *Mech.,* designating a surface, body, etc., designed to afford an unbroken flow of a fluid about it, esp. when the resistance to flow is the least possible; as, a *streamline* body for an automobile, airplane, or airship.

ax′le (ăk′s'l), *n.* [ME. *axel* in *axeltre,* fr. ON. *öxultrē,* fr. *öxull* axle (akin to AS. *eax;* see AXTREE) + *trē* (akin to E. *tree;* see TREE). See AXIS.] **1.** The pin or spindle on which a wheel revolves, or which revolves with a wheel. A ***dead axle*** carries road wheels but has no provision for driving them. A ***live axle*** carries weight and furnishes means through which driving power is transmitted to the wheels. The weight-carrying member is usually a hollow housing and the propelling members are concentric axle shafts carried in it. A ***plain live axle*** carries both differential and road wheels. A ***floating axle*** is a live axle for a self-propelled vehicle, in which the revolving part serves only to turn the wheels, the dead weight of the vehicle being carried on the ends of a fixed axle housing or casing. In a ***full-floating axle*** the wheels are supported on the housing, which carries two bearings on which the wheels revolve. In a ***three-quarter-floating axle*** the outer ends of the axle shafts are supported by the wheels, which form a rigid unit with the shafts and depend on them for alignment. In a ***semifloating axle*** the outer ends of the shafts are fastened to the wheel hubs and serve to transmit the load from the housing to the wheels.

su′per·charg′er (sū′pẽr·chär′jẽr), *n.* A device, such as a blower, compressor, or pump, for increasing the volume air charge of an internal-combustion engine over that which would normally be drawn in through the pumping action



One form of Supercharger for Aircraft Engines, showing: 1, 2 Air Inlet Passage; 3 Rotor, or Impeller; 4 Chamber equipped with vanes in which velocity of the fluid is gradually retarded with resulting increase of pressure; 5 Connections to intake valves of engine; 6 Engine side of Housing; 7 Outside Housing.

of the pistons. It is used to compensate for the lower density of air in altitude operation of aircraft engines or the deficiency of air charge in high-speed automotive operation.

free′wheel′ (frē′hwēl′; 258), *n.* **1.** A power-transmission system in an automotive vehicle between whose gearbox mechanism and final drive is interposed an overrunning clutch, making the connection for a positive drive between engine and propeller shaft, but permitting the propeller shaft to run freely when its speed becomes greater than that of the engine shaft.

free′wheel′ing, *n.* The driving of the propeller shaft, and hence the driving wheels, of an automotive vehicle through a freewheel. See FREEWHEEL, *n.,* 1. — **free′-wheel′ing,** *adj.*

Electricity, Physics, and Allied Subjects

On this composite page, and on the regular vocabulary pages immediately following, are specimen definitions of terms in the fields of Electricity, Physics, Aeronautics, Radio, and Automobiles.

In no other fields has progress been more rapid during recent years. The special editors for these subjects have presented in this book accurate definitions and treatment reflecting the results of the latest scientific research. In no other single volume can be found material of this scope and this quality.

e·lec′tron (ē·lĕk′trŏn), *n.* [NL., fr. Gr. *ēlektron.* See ELECTRIC.] **1.** = ELECTRUM, 2.
2. *Physics & Chem.* The most elementary charge of negative electricity; the electrical opposite of the proton. Each electron is a quantity of electricity equal to 4.77×10^{-10} C.G.S. electrostatic units (1/6,360,000,000,000,000,000 coulomb). Its mass, which is approximately $\frac{1}{1845}$ of that of the proton, or hydrogen nucleus, is considered to be entirely electromagnetic. An electron in a strong electric field may be given a velocity high enough to produce a noticeable increase in mass. It is sometimes assumed that the electron spins with an angular momentum, $h/4\pi$, in which h is Planck's constant; it is then called the ***spinning electron.*** There seems to be associated with the electron a wave motion which depends on its velocity (see WAVE MECHANICS). Electrons are constituents of all atoms. They constitute cathode rays and beta rays, and are emitted by hot bodies. See ATOMIC THEORY, ENERGY LEVEL.

wave (wāv), *n.* [From WAVE, *v.* but confused with ME. *wawe, waghe,* a wave (akin to E. *wag* to move). See WAVE, *v.*]
10. *Physics.* A single pulse or the disturbance included in a space of one wave length of the advance of a disturbance into a medium; as, temperature *waves;* sound *waves;* light *waves;* water *waves.* If the disturbance producing the waves is periodic, so will be the waves. Waves may be spherical, plane, etc., depending upon the shape of the wave front. ***Elastic waves*** are those in which the disturbance is mechanical, giving rise to forces of restitution owing to the elasticity of the medium. ***Transverse waves,*** as light waves, are those in which the vibrations of the individual particles of the medium are perpendicular to the direction of the advance of the waves; ***longitudinal waves,*** as sound waves, are those in which the vibrations are in the line of advance of the waves. Elastic waves in gases and liquids are longitudinal; in solids, they may be either longitudinal or transverse, or both. ***Electromagnetic waves*** are transverse. ***Mechanical waves*** and ***electromagnetic waves*** carry kinetic and potential energy with them. ***Electric waves*** either are *hertzian waves* (which see), or they are waves produced in a long conductor by variations in potential at one of its points, as in telephone cables. ***Water waves*** on the surface of a large body of water are due to the action of gravity unless the waves are very short, in which case surface tension is the cause of the wave propagation; each particle of the water moves in a small closed curve in a vertical plane. ***Damped waves,*** or damped vibrations, are those in which the amplitude of vibration of the particles becomes less, owing to absorption of the energy by the medium, as the waves advance. The ***simple periodic wave*** is the simplest type of wave; it results when each particle, or elementary portion, of the medium undergoes simple periodic changes through each complete revolution, or through an angle of 2π or 360°; the phase of vibration varies continuously from particle to particle in the direction of the advance of the wave. Cf. LIGHT, *n.,* 18; 6th SOUND, 1 **b**; VIBRATION, 3; WAVE LENGTH; HERTZIAN WAVES; HEAT WAVES; GROUND WAVE; SKY WAVE.

quantum theory. *Physics.* A theory originally advanced by Planck and since extended and confirmed, that in the emission or absorption of energy by atoms or molecules the process is not continuous but takes place by steps, each step being the emission or absorption of an amount of energy $h\nu$, called the quantum, where h is Planck's constant, and ν is a frequency associated with the atom or molecule.

cosmic ray. Any of the rays of extremely high frequency and penetrating power produced, it is thought, beyond the earth's atmosphere, or nearly beyond it, by transmutations of atoms continually taking place through interstellar space. If they are waves, as R. A. Millikan thinks, their wave length is shorter than that of any ray produced in laboratories, and their frequency is a thousand times greater than that of X rays. They bombard the earth from all directions and are in small part responsible for the ionization of the earth's atmosphere. By some they are believed to be very rapidly moving charged particles.

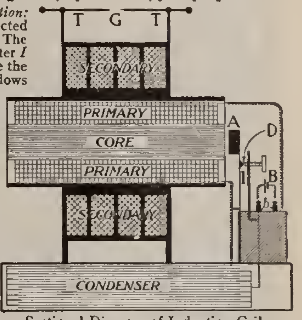
fil′ter (fĭl′tẽr), *n.* [F. *filtre,* fr. ML. *filtrum, feltrum,* felt, fulled wool, used for straining liquors, of Teut. origin; cf. OHG. *vilz.* See FELT, *n.;* cf. FELTER.]
4. *Physics.* A material or device for eliminating or minimizing waves or oscillations of certain frequencies without greatly altering the intensity of others; specif.: **a** *Elec.* An electric circuit or combination of circuits used to limit the flow of currents of certain frequencies or types while allowing other current to flow with relative freedom. A ***band,*** or ***band-pass, filter*** limits the flow of currents of frequencies below and above the limits of a certain frequency band. A ***high-pass filter*** limits the flow of currents below a certain frequency. A ***low-pass filter*** limits the flow of currents above a certain frequency.

ra′di·o·ac·tiv′i·ty (rā′dĭ·ō·ăk·tĭv′ĭ·tĭ), *n.* *Physics & Chem.* The emission of radiant energy; the property, possessed by certain elements (chiefly radium, uranium, thorium, and their products), whether free or combined, of spontaneously emitting alpha or beta rays, and sometimes also gamma rays, by the disintegration of the nuclei of atoms. An element emits *alpha rays* when its atom loses a helium nucleus and changes to an atom having an atomic number two units lower, whereas the emission of *beta rays* is caused by the loss of an electron from the nucleus, which yields an atom of atomic number one unit higher. In some cases *gamma rays* (high-frequency vibrations) also accompany this change. A series of such changes is called a *disintegration series;* it continues until a stable end product is reached (apparently always an isotope of lead). See RADIUM.

re·sist′ance (rē·zĭs′tăns; 91), *n.* [ME. *resistence,* fr. OF. *resistence* (F. *résistance*), fr. LL. *resistentia,* fr. L. *resistens, -entis,* pres. part. See RESIST.]
4. *Elec.* **a** The opposition offered by a substance or body to the passage through it of an electric current, converting electrical energy into heat; the reciprocal of conductance. True resistance varies directly as the length and inversely as the cross section and conductivity of the conductor. It may be measured by a balancing method (see WHEATSTONE'S BRIDGE), or by the ratio of the difference of potential to the current strength (see OHM'S LAW). The common symbol for resistance is R, and the practical unit, the ohm. Cf. IMPEDANCE, REACTANCE, SURFACE RESISTANCE, VOLUME RESISTANCE. **b** A source of resistance; esp., a resistance coil or some similar device (called also *resistor*). An *inductive resistance* is one possessing self-induction. A *noninductive resistance* possesses no self-induction and offers no greater opposition to a varying than to an unvarying current.

induction coil. *Elec.* An apparatus for transforming a direct current, such as an ordinary battery current, by induction into an alternating current of high potential; — called also *Ruhmkorff coil, spark coil, jump-spark coil.*

Description of Illustration: The Battery *B* is connected with Binding Posts *b.* The hammer-break Interrupter *I* being in position to close the circuit, the current flows through the Primary Winding, thus magnetizing the laminated iron Core, which then attracts the Armature *A*, breaking the circuit at *D.* The Core then becomes demagnetized, permitting *A* to spring back to its original position and again close the circuit. The Condenser is in parallel with the break at *I.* The Terminals *T, T* of the Secondary Winding form the Spark Gap *G.*



Sectional Diagram of Induction Coil.

It consists of a coil or helix of stout insulated wire (the primary) surrounded by another coil of many turns of fine insulated wire (the secondary), and is provided also with a core built up of soft iron wire or laminae, an interrupter, and, usually, a small condenser connected in parallel with the primary to prevent sparking at the interrupter, and thus to make the sparks longer and unidirectional. The current through the primary coil is automatically interrupted, and as a consequence an electromotive force is induced in the secondary which will produce sparks between its terminals.

electron tube. *Elec.* A form of vacuum tube (sense **b**) consisting of a heated cathode, of an anode, or plate, and of a third electrode, or grid, for controlling the current flowing between the other two electrodes, all contained within an enclosure evacuated to an exceedingly low pressure; — called in full *three-electrode electron tube.* Its operation depends essentially on the flow of electrons emitted from the hot cathode. See ELECTRICITY, *n.,* 2. Common forms resemble in appearance small incandescent lamp bulbs. It is used for the detection of radio waves, for the amplification of currents, the generation of alternating currents of a very great frequency range, and, since it transmits current in one direction only, as a rectifier of alternating currents. Called also *radio tube, vacuum tube* or *valve,* etc.

ca·pac′i·tance (kȧ·păs′ĭ·tăns), *n.* [From *capacity reactance.*] *Elec.* **a** That property of an isolated conductor or of a condenser which expresses its ability to keep the potential low for a given charge. This property is measured by the quantity of electricity put in it by a given voltage. **b** That property of a circuit or of a condenser which is exhibited by the current leading an impressed alternating electromotive force; — opposed to *inductance.* **c** Specif., the ratio of the charge on a conductor to its potential, or the ratio of the charge on a positive plate of a condenser to the difference of potential between that of this plate and the corresponding negative plate. For a given circuit, capacitance depends upon the dimensions of the conductors and upon the nature and dimensions of the dielectric. In the C.G.S. electromagnetic system, capacitance is expressed in farads. A condenser has a capacitance of one farad when a charge of one coulomb will raise its potential one volt. In a pure capacitance circuit free from resistance, the leading current in amperes is $2\pi fCE$; where f = frequency in cycles per second, C = capacitance in farads, and E = electromotive force in volts. **d** A source of capacitance, as a condenser or as an antenna functioning as a condenser, a condenser in fact being formed by any isolated conductor taken in conjunction with the ground.

screen′-grid′ tube. *Elec.* A tetrode in which one of the electrodes, maintained at a suitable potential, serves to eliminate the capacitance between the grid and the plate.

su′per·het′er·o·dyne′ (-hĕt′ẽr·ō·dīn′), *adj.* *Radio.* Pertaining to a form of beat reception in which beats are produced of a frequency above audibility but below that of the received signals, the current of the beat frequency being then rectified, next amplified, and finally rectified again so as to reproduce the music, speech, or the like, in the telephone receivers. Cf. 2d BEAT, 17, and HETERODYNE.

su′per·re·gen′er·a′tive (-rē·jĕn′ẽr·ā′tĭv; -ȧ·tĭv), *adj.* *Radio.* Pertaining to regenerative reception in which transient currents periodically carry the process of regeneration further than is possible in the steady state. This is usually accomplished by the introduction of an auxiliary frequency lower than the radio frequency received. — **su′per·re·gen′er·a′tion** (-jĕn′ẽr·ā′shŭn), *n.*

2. With that; therewith; at the same time.
Thy slanders I forgive; and *therewithal*
Remit thy other forfeits. *Shak.*
3. At the same time; therewith; thereupon.
4. Moreover; also; withal; for all that. *Obs.*
there′with·in′ (thâr′wĭth·ĭn′), *adv.* Within that. *Rare.*
the′ri·ac (thē′rĭ·ăk), *n.* [L. *theriaca.*] Theriaca. — **the′ri·ac,** *adj.*
the·ri′a·ca (thē·rī′ȧ·kȧ), *n.* [L., an antidote to snake bites. See TREACLE.] **1.** *Old Med.* An antidote to poison; esp., a mixture of about seventy drugs pulverized and reduced with honey to an electuary; — called also ‖*the·ri′a·ca An·dro′ma·chi* (ăn·drŏm′ȧ·kī), and *Venice treacle.*
2. Treacle; molasses. *British Pharm.*
the·ri′a·cal (thē·rī′ȧ·kăl), *adj.* [*theriac* + *-al.*] Of or pertaining to theriaca; medicinal.
the′ri·al (thē′rĭ·ăl), *adj.* Theriacal.
the′ri·an·throp′ic (thē′rĭ·ăn·thrŏp′ĭk), *adj.* [*theri-* + Gr. *anthrōpos* man.] Combining human and animal form, as the centaur; also, pertaining to religions in which the deities worshiped are conceived as partly human, partly animal in form.
the′ri·an′thro·pism (-ăn′thrō·pĭz′m), *n.* **a** Therianthropic beliefs. **b** The belief that men may sometimes assume animal form, as the werewolf. See LYCANTHROPY, 2.
the′ri·at′rics (-ăt′rĭks), *n.* [*ther-* + *-iatrics.*] The science of veterinary medicine.
The′ri·di′i·dae (thē′rĭ·dĭ′ĭ·dē), *n. pl.* [NL., fr. Gr. *thēridion* a small animal + *-idae.*] *Zool.* A family of spiders, net weavers, usually with a small globose body and slender legs. **The·rid′i·on** (thē·rĭd′ĭ·ŏn) is the type genus. — **the·rid′i·id** (-ĭ·ĭd), *n. & adj.*
the′ri·o- (thē′rĭ·ō-), **theri-.** [See TREACLE.] A combining form, Greek *thērio-, thēri-,* from *thērion,* meaning *beast,* as in *theriomorphic, theri*anthropic, and in:

theriomaniac	theriomorphosis	theriotrophical
theriomimicry	theriotheism	theriozoic

the′ri·od′ic (-ŏd′ĭk), *adj.* [Gr. *thēriōdēs.*] Malignant.
The′ri·o·don′ti·a (-shĭ·ȧ), **The′ri·o·don′ta** (thē′rĭ·ō·dŏn′tȧ), *n. pl.* [NL., fr. *theri-* + Gr. *odōn, odontos,* a tooth.] *Paleontol.* A group of reptiles (usually made a suborder of Therapsida) with teeth differentiated into incisors, prominent canines, and multicuspid or tuberculated molars. They are mostly known from skulls found in the Permian and Triassic formations of South Africa. Formerly nearly or quite equivalent to Theromorpha. — **the′ri·o·dont′** (thē′rĭ·ō·dŏnt′), *adj. & n.*
the′ri·o·man′cy (thē′rĭ·ō·măn′sĭ), *n.* [*therio-* + *-mancy.*] Divination by observation of wild animals.
the′ri·o·morph′ (-môrf′), *n.* [*therio-* + *-morph.*] *Archaeol.* Any object, as a vase, shaped in animal form.
the′ri·o·mor′phic (-môr′fĭk), *adj.* [Gr. *thēriomorphos,* fr. *thērion* wild beast + *morphē* form.] Having an animal form; as, *theriomorphic* gods.
the′ri·o·mor′phism (-fĭz′m), *n.* [*therio-* + *-morph* + *-ism.*] Representation of deity in animal form.
the′ri·o·mor′phous (-fŭs), *adj.* Theriomorphic.
-the′ri·um. [NL.] A combining form, from Greek *thērion,* beast, denoting *a genus of* (mammalian) *beasts,* as in Mega*therium,* Titano*therium.* Corresponding nouns in **-the′ri·a, -the·ri′i·dae, -the′ri·i′nae,** denote respectively subclasses, families, and subfamilies, as in Proto*theria,* Mega*theriidae,* etc.
therm (thûrm), *n.* Also **therme.** [F. *thermes,* pl., fr. L. *thermae* hot springs, warm baths, fr. Gr. *thermai,* pl. of *thermē* heat. See WARM.] **1.** A hot bath; hence, any bath, pool of water, bathing place, etc. *Obs.*
2. [Gr. *thermē* heat.] *Physics.* The great calorie, equal to 4.2×10^7 ergs; — a name proposed by a committee of the British Association of Science, in 1896. Sometimes also: **a** The small calorie. **b** A practical unit equal to 1,000 great calories. See CALORIE **a** & **b.**
-therm (-thûrm). A combining form from Greek *thermē,* heat, denoting: **a** *Bot. A plant accustomed to a* (specified) *type of heat,* as in mega*therm,* xero*therm.* **b** *Meteorol. A thermic line,* as in iso*therm.* **c** *Med. Apparatus for applying heat,* as in colpo*therm.*
therm-. = THERMO-.
therm. Var. of THARM.
ther′ma·co·gen′e·sis (thûr′mȧ·kō·jĕn′ē·sĭs), *n.* [NL., fr. *therm-* + pharmaco- + *-genesis.*] *Med.* The production of an increase of temperature in the body by a drug.
ther′mae (thûr′mē), *n. pl.* [L. See THERM.] Warm springs or baths; specif., *Rom. Antiq.,* the baths of a public establishment for bathing; also, the establishment.
ther′mal (thûr′măl), *adj.* [Gr. *thermē* heat; cf. F. *thermal.* See THERM.] **1.** Of or pertaining to thermae.
2. Of or pertaining to heat; warm; hot; as, *thermal* water; also, *Rare,* erotic; passionate.
3. *Physics.* Pertaining to a state of matter which depends upon its temperature alone; as, the *thermal* agitation of the molecules of a body.
thermal ammeter. *Elec.* An ammeter operated by the heating of a wire or metal strip. Cf. EXPANSION AMMETER, THERMOAMMETER.
thermal belt. *Meteorol.* A well-defined zone on the sides of many valleys where frost damage is at a minimum; — called also *verdant zone* and *green belt.* It is due to the adiabatic compression (and consequent heating) of the cold air flowing down the hill or mountain sides into the valley.
thermal conductivity. *Physics.* Capability of conducting heat; also, the quantity of heat that passes in unit time through a unit area of plate whose thickness is unity, when its opposite faces differ in temperature by one degree.
thermal cutout. *Elec.* A protective device for automatically opening an overloaded circuit.
thermal efficiency. *Thermodyn.* The ratio of the heat utilized by a heat engine to the total heat units in the fuel consumed. In ***indicated thermal efficiency,*** the heat utilized is that transformed into work at the piston. In ***delivered, or brake, thermal efficiency,*** the heat utilized is that transformed into work at the shaft or flywheel; — sometimes called *shaft, or flywheel, efficiency.* In ***combined thermal efficiency,*** the heat utilized is that transformed into work by the machine driven by the engine. ***Plant thermal efficiency*** is the ratio of the heat delivered by a heating plant in a given time to the heat supplied by the fuel consumed in the same period.
thermal equator. *Meteorol.* The region of the earth enclosed within the annual isotherms of 80°, including the northern part of South America and the greater part of Africa and India; also, the middle line of this belt.

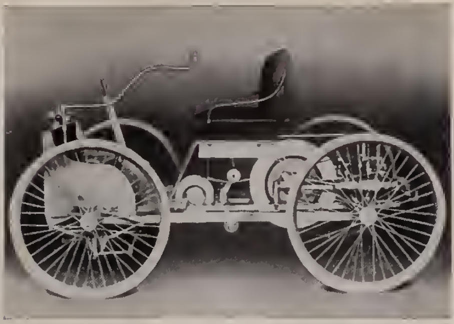
ther′mal·ge′si·a (thûr′măl·jē′zĭ·ȧ; -sĭ·ȧ), *n.* [NL., fr. *therm-* + *algesia.*] *Med.* A condition in which pain is caused by the application of moderate heat.
ther·mal′i·ty (thẽr·măl′ĭ·tĭ), *n.* State of a body considered with reference to its heat.
ther′mal·ly (thûr′măl·ĭ), *adv.* of THERMAL.
thermal metamorphism. Thermometamorphism.
thermal paradox. *Physics.* A well-known experiment in heat in which a flask of boiling water, having been removed from the flame, corked, and inverted, is made to boil again by the application of cold. The effect of the cold is to reduce the pressure of the vapor and thus lower the boiling point of the water.
thermal parameters (on a surface). *Math.* The parameters *u* and *v* (through which *x, y, z* are expressed) when $ds^2 = E\,(du^2 + dv^2)$, $G = E$, $F = 0$, *ds* being the curve element and *E, F, G* the fundamental magnitudes of first order; — so called because of importance in the theory of the conduction of heat. Called also *isometric parameters, isothermal parameters.*
thermal pressure. *Physics.* The pressure, inside a body, which is associated with its temperature. It is opposite in direction to the *internal* pressure and is balanced by the combination of the internal pressure and the pressure on the surface of the body.
thermal spectrum. See SPECTRUM, 2.
thermal spring. *Geol.* A spring whose water issues at a temperature higher than the mean temperature of the locality where the spring is situated. If its water temperature is above 98° F., it is termed a hot spring. Cf. GEYSER. Among noted hot springs are those of Bath, England (117°–120° F.), Karlsbad, Germany (107.7° F.–164° F.), Plombières-les-Bains, France (66°–166° F.), and Hot Springs, Ark. (147° F.).
thermal unit. *Physics.* A unit chosen for the comparison or calculation of quantities of heat, as the calorie or the British thermal unit.
ther·man′tic (thẽr·măn′tĭk), *adj. & n.* [Gr. *thermantikos* capable of heating; cf. F. *thermantique.*] Calefacient. *Now Rare.*
therm·an′ti·dote (thẽr·măn′tĭ·dōt), *n.* [*therm-* + *antidote.*] A device for circulating and cooling the air, consisting essentially of a kind of rotating wheel fitted in a window and encased in wet tatties. *India.*
ther′ma·tol′o·gy (thûr′mȧ·tŏl′ō·jĭ), *n.* [Gr. *thermē* heat + *-logy.*] Science of heat, esp. of using hot springs, baths, etc., in treating disease. — **ther′ma·to·log′ic** (-tō·lŏj′ĭk), *adj.* — **ther′ma·tol′o·gist** (-tŏl′ō·jĭst), *n.*
therm′es·the′si·a, therm′aes·the′si·a (thûrm′ĕs·thē′zhĭ·ȧ; -zhȧ; -zĭ·ȧ), *n.* [NL.] *Physiol.* Sensitiveness to heat; temperature sense.
therm′es·the′si·om′e·ter, therm′aes·the′si·om′e·ter (-zĭ·ŏm′ē·tẽr; -sĭ-), *n.* [See THERMESTHESIA; -METER.] *Physiol.* An instrument for testing thermesthesia.
ther′mic (thûr′mĭk), *adj.* Also **ther′mi·cal** (-mĭ·kăl). [Gr. *thermē* heat.] Of or pertaining to heat; due to heat; thermal; as, *thermic* lines. — **ther′mi·cal·ly,** *adv.*
thermic anomaly. *Meteorol.* The difference of the mean temperature of a place from the normal temperature of its latitude.
thermic balance. See BALANCE, *n.,* 2.
thermic fever. *Med.* Fever caused by heatstroke.
thermic weight. = ENTROPY, 1.
Ther′mi·do′ri·an (thûr′mĭ·dō′rĭ·ăn; 181), *adj.* [F. *thermidorien.* See THERMIDOR.] Lit., of or pertaining to Thermidor; hence, designating, or pertaining to, the Thermidorians. — *n.* *F. Hist.* One who shared in, or sympathized with, the overthrow of Robespierre, on the 9th Thermidor (July 27), 1794.
therm′i′on (thûrm′ī′ŏn), *n.* [*therm-* + *ion.*] *Physics.* An electrically charged particle emitted by an incandescent substance. Thermions are either negatively charged (electrons) or positively charged (ions).
therm′i·on′ic (thûrm′ī·ŏn′ĭk), *adj.* *Physics.* Of or pertaining to, or of the nature of, a thermion or thermions. — **therm′i·on′i·cal·ly,** *adv.*
thermionic current. An electric current due to the directed movements of thermions, as in the electric discharge through a vacuum tube with the cathode incandescent.
thermionic emission. *Physics.* The emission of electrons from a hot cathode, as in a vacuum tube; — called also *Richardson effect.*
thermionic instrument. *Electrometry.* An instrument in which a thermionic (vacuum) tube and a direct current meter are combined to measure current.
thermionic rectifier. *Elec.* A rectifier employing the principle of the diode. It consists of a vacuum tube whose cathode is a heated filament, the thermionic discharge from the cathode permitting the passage of current in one direction only; — called also *vacuum-tube rectifier* or *bulb rectifier.*
therm′i·on′ics (thûrm′ī·ŏn′ĭks), *n.* The branch of physics dealing with phenomena due to thermions. See -ICS.
thermionic tube. *Elec.* **a** A vacuum tube (sense **b**) in which electron emission is produced by the heating of an electrode. **b** = ELECTRON TUBE.
thermionic valve. *Elec.* = ELECTRON TUBE.
Ther′mit (thûr′mĭt), *n.* [Gr. *thermē* heat + *-ite.*] A trade-mark for a mixture of aluminum in fine grains with an oxide of a chemically weaker metal, usually iron; hence [*sometimes not cap.*], the mixture bearing this trademark. On being heated by a priming, as of magnesium powder, the aluminum combines violently with the oxygen of the oxide, generating great heat and setting the other metal free in the molten state. It is used in welding. ***Cast-iron Thermit*** is a mixture of aluminum, iron oxide, ferrosilicon, and mild-steel forgings.
ther′mo- (thûr′mō-), **therm-.** Comb. form, Greek *thermo-, therm-,* from *thermē,* denoting *heat,* as in *thermo*-chemistry; specif., abbr. of *thermoelectric,* as in *thermo*-battery.
ther′mo·am′me′ter (thûr′mō·ăm′mē′tẽr; -ăm′ē·tẽr), *n.* [*thermo-* + *ammeter.*] *Elec.* A thermal ammeter in which the heat effect is indicated by a thermocouple.
ther′mo·an′es·the′si·a, ther′mo·an′aes·the′si·a (-ăn′ĕs·thē′zhĭ·ȧ; -zhȧ; -zĭ·ȧ), *n.* [NL.] *Med.* Loss of power to distinguish heat or cold by touch.
ther′mo·bar′o·graph (-băr′ō·grăf), *n.* *Physics.* An instrument for recording simultaneously the pressure and temperature of a gas; a combined thermograph and barograph.
ther′mo·ba·rom′e·ter (-bȧ·rŏm′ē·tẽr), *n.* *Physics.* **a** A hypsometer. **b** A siphon barometer adapted to be used also as a thermometer.

ther′mo·bat′ter·y (thûr′mō·băt′ẽr·ĭ), *n.; pl.* -IES (-ĭz). A thermopile.
ther′mo·cau′ter·y (-kô′tẽr·ĭ), *n.; pl.* -IES (-ĭz). *Surg.* **a** Cautery by the application of heat. **b** A firing iron.
ther′mo·chem′i·cal (-kĕm′ĭ·kăl), *adj.* Also **ther′mo·chem′ic** (-ĭk). Of, pertaining to, or obtained by, thermochemistry. — **ther′mo·chem′i·cal·ly,** *adv.*
ther′mo·chem′ist (-ĭst), *n.* One who makes a specialty of or one who is versed in, thermochemistry.
ther′mo·chem′is·try (-ĭs·trĭ), *n.* That branch of chemical science which treats of the relations existing between chemical action and heat. See ENDOTHERMIC, EXOTHERMIC.
ther′mo·chro′ic (-krō′ĭk), *adj.* [*thermo-* + *-chroic.*] Pertaining to or designating heat rays that have undergone selective absorption and are therefore analogous to colored light rays.
ther′mo·chro′sy (thûr′mō·krō′sĭ; thẽr·mŏk′rō·sĭ), *n.* [*thermo-* + Gr. *chrōsis* coloring.] *Physics.* The property of being or becoming thermochroic.
ther′mo·cline (thûr′mō·klīn), *n.* [*thermo-* + *-cline.*] A temperature gradient, esp. one marking sharp change; also, any of the layers (*discontinuity layers*) of water exhibiting this.
ther′mo·cou′ple (thûr′mō·kŭp′′l), *n.* *Elec.* A thermoelectric couple used to measure temperature differences.
thermocouple instrument. *Elec.* An instrument consisting of a thermocouple (or thermocouples) combined with a direct-current meter, used for measuring small values of alternating current and high-frequency currents. The current heats the thermocouple and the resulting electromotive force is measured.
thermocouple meter. *Elec.* An instrument, as an ammeter or voltmeter suitable for a high-frequency circuit, where one or more thermocouples are heated by the current to be measured, and where the electromotive force of the thermocouple actuates a suitable deflecting instrument.
ther′mo·cur′rent (thûr′mō·kûr′ĕnt), *n.* *Physics.* A current developed or set in motion by heat; specif., an electric current, in a heterogeneous circuit, due to differences of temperature between the junctions of the substances of which the circuit is composed. See THERMOELECTRICITY.
thermo development. *Photog.* Adjustment of the development time in accordance with the developer solution temperature, commonly used for negatives; — called also *time and temperature method.*
ther′mo·dif·fu′sion (-dĭ·fū′zhŭn), *n.* Thermal diffusion.
ther′mo·dy·nam′ic (-dī·năm′ĭk; -dĭ-), *adj.* Also **ther′mo·dy·nam′i·cal** (-ĭ·kăl). *Physics.* Relating to thermodynamics; caused or operated by force due to the application of heat. — **ther′mo·dy·nam′i·cal·ly,** *adv.*
thermodynamic efficiency. The efficiency of a heat engine operating on a Carnot cycle. It is equal to $\frac{T_1 - T_2}{T_1}$, in which T_1 and T_2 are the absolute temperatures of the source of heat and of the refrigerator respectively. Called also *Carnot efficiency.*
thermodynamic potential. A quantity of energy which along with other defining quantities determines the condition of a thermodynamic medium.
ther′mo·dy·nam′ics (thûr′mō·dī·năm′ĭks; -dĭ-), *n.* The science which treats of the mechanical action or relations of heat. See LAWS OF THERMODYNAMICS; -ICS.
ther′mo·e·lec′tric (thûr′mō·ē·lĕk′trĭk), *adj.* Of or pertaining to thermoelectricity. — **ther′mo·e·lec′tri·cal** (-trĭ·kăl), *adj.* — **ther′mo·e·lec′tri·cal·ly,** *adv.*
thermoelectric couple *or* **pair.** *Elec.* A union of two conductors, as bars or wires of dissimilar metals joined at their extremities, for producing a thermoelectric current. Cf. THERMOCOUPLE.
thermoelectric inversion. Reversal in direction of a current produced by a thermocouple when the difference of temperature is increased beyond a certain neutral point.
ther′mo·e·lec′tric′i·ty (thûr′mō·ē·lĕk′trĭs′ĭ·tĭ; -ĕl′ĕk-), *n.* Electricity produced by the direct action of heat, as by the unequal heating of a circuit composed of two dissimilar metals; also, the branch of electricity that deals with such phenomena. Wherever two dissimilar conductors come in contact there is a difference of electric potential, and if their other ends are joined and the two junctions maintained at different temperatures an electric current will be produced in the circuit thus formed. Conversely, when a current passes through such a junction a heating or cooling occurs, according to the direction of the current (Peltier effect). The thermoelectric properties of most metals vary with the temperature, hence electromotive force is also observed at the junction of two differently heated portions of a metal.
thermoelectric multiplier. *Elec.* A thermopile.
thermoelectric pair. *Elec.* = THERMOELECTRIC COUPLE.
thermoelectric pile. A thermopile.
thermoelectric power of a metal. *Physics.* Electromotive force of a pair composed of the metal in question and of a standard metal (lead) when the difference in temperature of the two junctions is one degree centigrade.
thermoelectric series. A series of conductors arranged in the order of their thermoelectric powers.
thermoelectric thermometer. See THERMOMETER.
ther′mo·e·lec′trom′e·ter (thûr′mō·ē·lĕk·trŏm′ē·tẽr; -ĕl′ĕk-), *n.* An instrument to measure the strength of an electric current by the heat which it produces, or to determine the heat developed by it.
ther′mo·e·lec′tro·mo′tive (-ē·lĕk′trō·mō′tĭv), *adj.* Pert. to or designating the force causing thermoelectric currents.
ther′mo·el′e·ment (-ĕl′ē·mĕnt), *n.* *Elec.* A device for measuring small currents, consisting of a wire heating element and a thermocouple in electrical contact with it.
ther′mo·ex·ci′to·ry (-ĕk·sī′tō·rĭ), *adj.* *Physiol.* Exciting the production of heat in the body.
ther′mo·gal′va·nom′e·ter (-găl′vȧ·nŏm′ē·tẽr), *n.* *Elec.* A thermoammeter for small currents, usually consisting of a thermoelement and a direct-current galvanometer.
ther′mo·gen (thûr′mō·jĕn), *n.* [*thermo-* + *-gen.*] *Old Chem.* Caloric; heat, regarded as a material but imponderable substance.
ther′mo·gen′er·a′tor (-jĕn′ẽr·ā′tẽr), *n.* A generator of heat.
ther′mo·gen′e·sis (-jĕn′ē·sĭs), *n.* [NL., fr. *thermo-* + *-genesis.*] **1.** Production of heat as in the body by oxidation, etc.
2. Spontaneous combustion.
— **ther′mo·ge·net′ic** (-jē·nĕt′ĭk), *adj.*

therf. Var. of THARF.
theri-. = THERIO-.
-the′ri·a. See -THERIUM.
the·ri′a·cle, *n.* = TREACLE. *Obs.*
-the·ri′i·dae. See -THERIUM.
the′ri·ol′a·try (thē′rĭ·ŏl′ȧ·trĭ), *n.* [*therio-* + *-latry.*] = ANIMAL WORSHIP.
therm′aes·the′si·a. Var. of THERMESTHESIA.
therm′aes·the′si·om′e·ter. Var. of THERMESTHESIOMETER.
therm·an′aes·the′si·a. Var. of THERMANESTHESIA.
therm·an′al·ge′si·a, *n.* [NL.] = THERMOANESTHESIA.
therm·an′es·the′si·a, *n.* [NL.] *Med.* = THERMOANESTHESIA.
therme (thûrm), *n.* Var. of THERM. [*Bib.*]
Ther′me·leth (thûr′mē·lĕth).
ther·met′o·graph (thẽr·mĕt′ō·grăf), **ther·met′ro·graph** (-rō·grăf), *n.* = THERMOMETROGRAPH.
-ther′mi·a (-thûr′mĭ·ȧ). = -THERMY.
‖**Ther′mi′dor′** (tĕr′mē′dôr′; *E.* thûr′mĭ·dôr′), *n.* [F., fr. Gr. *thermē* heat + *dōron* gift.] See REVOLUTIONARY CALENDAR.
ther′mo·aes·the′si·a, *n.* = THERMESTHESIA.
ther′mo·an′aes·the′si·a. Var. of THERMOANESTHESIA.
ther′mo·an′al·ge′si·a (-ăn′ăl·jē′zĭ·ȧ; -sĭ·ȧ), *n.* = THERMOANESTHESIA.
ther′mo·di·nam′ic. Thermodynamic. *Ref. Sp.* [-IAN.]
ther′mo·dy′na·mi′cian, *n.* See
ther′mo·dy·nam′i·cist (thûr′mō·dī·năm′ĭ·sĭst; -dĭ-), **ther′mo·dy′na·mist** (-dī′nȧ·mĭst; -dĭn′ȧ-), *n.* See -IST.
ther′mo·es·the′si·a (-ĕs·thē′zhĭ·ȧ; -zhȧ; -zĭ·ȧ), *n.* [NL., fr. *thermo-* + *esthesia.*] = THERMESTHESIA.

EARLY AUTOMOBILES

Duryea, 1892-3


Ford, 1893

Haynes, 1894

Olds, 1896

Winton, 1898

Locomobile, 1900

Knox, 1900

Electric Brougham, 1900

White Steamer, 1900

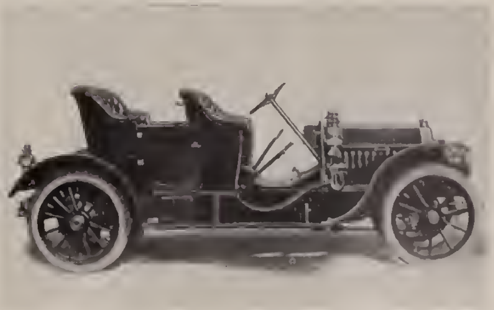
Packard, 1901

Pierce-Arrow, 1901

Cadillac, 1903

Packard Touring Car, 1903

Maxwell Runabout, 1909


Peerless Touring Car, 1909

Packard Landaulet, 1909

Electric Runabout, 1909

Pierce-Arrow Limousine, 1909

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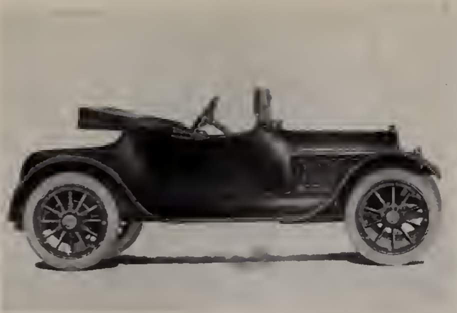
LATER AUTOMOBILES

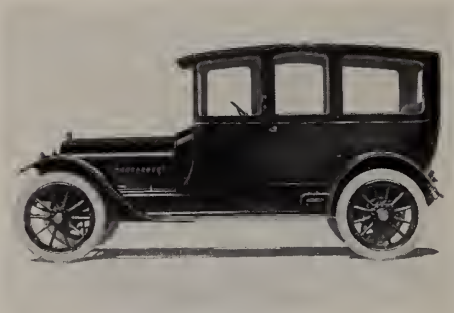


Roadster, 1914

Electric Brougham, 1914

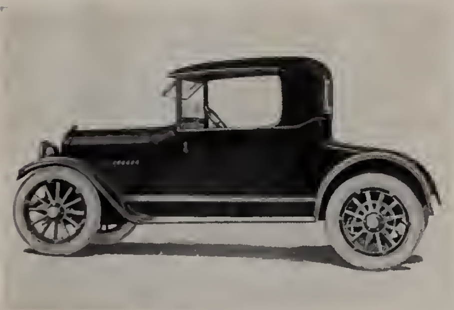
Runabout, 1914

Coupé, 1914



Sedan, 1914

Touring Car, 1914



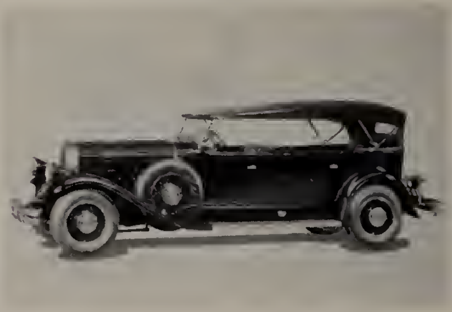
Touring Coupé, 1917

Berline, 1917

Brougham, 1917

Phaeton, 1929

Cabriolet, 1929



7-Passenger Touring Car, 1929

Roadster, 1930

Coach, 1930

Sedan-Limousine, 1930

Coupé, 1934

Sedan, 1934

Convertible Coupé, 1934

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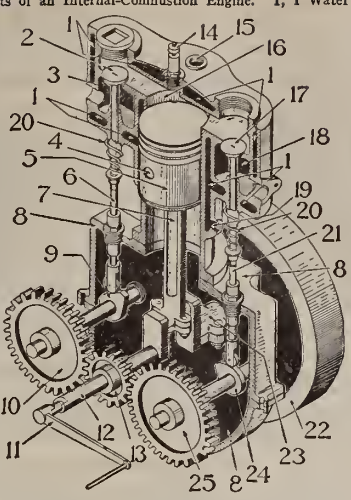
country or state, etc., domestic; as, *internal* trade; specif., pert. to or designating the administrative functions and duties of a government performed in furthering the welfare of its citizens (see DOMESTIC, 3); also (esp. in the United States), designating, or pert. to, the revenue (**inland revenue**) derived from its taxes and from its duties on domestic commerce, trade, industries, etc.
4. Studying in a college of a university. *Eng.*
5. *Anat.* Near the inside of the body; as, the *internal* oblique muscle of the abdomen; toward the medial plane.
6. *Psychol.* **a** Present or performed within the organism; as, the *internal* senses; *internal* speech. **b** Arising within a sense organ; as, an *internal* stimulus.
Syn. and **Ant.** — See INNER.
☞ For most phrases beginning with the word *internal*, see the second word of the phrase.
in·ter'nal (ĭn·tûr'năl; -n'l), *n.* **1. a** *pl.* The internal organs of the body. **b** *Obs.* A medicine to be taken internally.
2. The inner or essential nature or quality; also, the inner, spiritual nature; the soul.
internal account. See EXTERNAL ACCOUNT.
internal angle. = INTERIOR ANGLE.
internal auditory meatus, internal acoustic meatus. See AUDITORY MEATUS.
internal bath. *Med.* An enema.
internal brown spot *or* **fleck.** *Plant Pathol.* A nonparasitic disease of the potato, characterized by brown spots scattered throughout the interior of the tuber.
internal center of similitude (of two circles or spheres). *Math.* The intersection of the common tangent lines of the two circles, or planes of the two spheres, which divides the join of the two centers internally in the ratio of their radii.
internal circuit. *Elec.* That part of a circuit which is within the generator.
in·ter'nal-com·bus'tion, *adj.* Operated by internal combustion. See INTERNAL-COMBUSTION ENGINE.
internal-combustion engine. *Mach.* A heat engine in which the pressure necessary to produce motion of the mechanism results from the ignition or burning of a fuel-air mixture within the engine cylinder. The gas used may be a fixed gas, or one derived from alcohol, ether, gasoline, naphtha, oil (petroleum), etc. Internal-combustion engines may be classified, according to the kind of fuel used, as: (1) ***gas engines,*** which are mostly stationary engines using blast-furnace gas, producer gas, natural gas, etc.; (2) ***gasoline engines,*** including stationary, automotive, marine, tractor, and airplane engines, commonly using gasoline; and (3) ***oil engines,*** as stationary or small marine engines using kerosene or heavier oils. The name *oil engines* is ordinarily applied only to explosion engines and not to Diesel and semi-Diesel engines. They may also be classified according to the process of combustion; as: (1) ***explosion,*** or ***constant-volume-combustion, engines,*** engines in which a mixture of volatile liquid or gas and air compressed to a moderate pressure during the compression stroke of the engine piston, ignites, usually by an electric spark (***electric ignition***), explodes, and expands with its volume constant; (2) ***constant-pressure-combustion*** or ***Diesel, engines,*** operating on the Diesel cycle (see DIESEL ENGINE); or ***mixed-cycle engines,*** engines in which the combustion is partly explosive and partly at constant pressure, operating on what is sometimes called *Sabathé's cycle* (which see). In mixed-cycle engines, the fuel-air mixture is compressed during the compression stroke of the piston to from 100 to 300 pounds per square inch and is ignited by a flame of gas (***flame ignition,*** now little used), or by some form of hot tube, hot bulb, or uncooled portion of the combustion-chamber surface. In some mixed-cycle engines, called ***supercompression engines,*** a portion of the compressed charge is compressed to a much higher pressure than the remainder



Working Parts of an Internal-Combustion Engine. 1, 1 Water Jacket; 2 Inlet Valve; 3 Inlet Valve Chamber; 4 Wrist Pin; 5 Piston; 6 Inlet Valve Lifter Rod; 7 Connecting Rod; 8, 8 Crankcase; 9 Inlet Valve Cam; 10 Inlet Cam Shaft Gear; 11 Starting Crank; 12 Crankshaft; 13 Gear to Cam Shafts; 14 Spark Plug; 15 Water Outlet; 16 Combustion Space; 17 Exhaust Valve; 18 Exhaust Valve Chamber; 19 Water Inlet; 20, 20 Valve Springs; 21 Exhaust Valve Lifter Rod; 22 Flywheel; 23 Crankshaft Bearing; 24 Exhaust Valve Cam; 25 Exhaust Cam Shaft Gear.

during the last stages of the compression stroke, thus raising this portion of the fuel-air mixture to a temperature above that of ignition. Other mixed-cycle engines, called ***precombustion engines,*** have a small uncooled precombustion chamber or cup, separate from the cylinder, in which a portion of the mixture is ignited. This portion, in turn, ignites the cylinder charge. Some mixed-cycle engines very closely resemble Diesel-cycle engines and are called *semi-Diesel engines* (which see). Internal-combustion engines are also classified according to the number of strokes of the piston in one complete working cycle; as: (1) ***two-stroke-cycle engines*** (loosely called ***two-cycle engines***) in which compression and expansion of the charge is effected during one stroke (***compression-expansion stroke***), one side of the piston exerting the compressive force while the other side is receiving the outward thrust due to the expansion of the gases compressed previously, while the drawing in of a fresh charge takes place during the other stroke (***exhaust-suction stroke***) simultaneously with the exhaust of the burnt gases, the fresh charge being drawn in on one side of the piston while the burnt gases are being expelled by the other side of it. In ***four-stroke-cycle engines*** (loosely called ***four-cycle engines***) the air or explosive mixture is drawn into the cylinder on the suction stroke, compressed on the compression stroke and ignited. It burns and performs useful work on the expansion stroke and the products of combustion are exhausted on the exhaust, or scavenging, stroke. Cf. LENOIR CYCLE, RECIPROCATING ENGINE, RADIAL ENGINE.

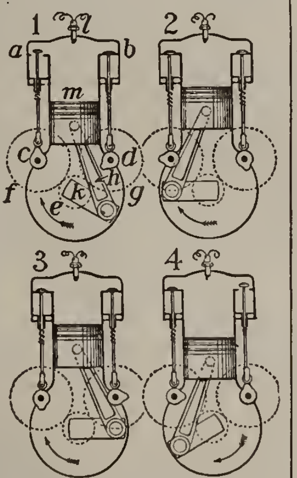


Diagram showing operation of Otto Cycle Internal-combustion Engine. *a* Inlet Valve; *b* Exhaust Valve; *c, d* Cams operating these Valves; *e* Small Gear Wheel, and *f, g* Large Gear Wheels, each having twice as many teeth as *e*, composing the Two-to-one Gear, for making *c* and *d* rotate once in every two revolutions of the Engine Crankshaft; *h* Connecting Rod; *k* Crank; *l* Spark Plug; *m* Piston, inside of which *h* is pivoted to the Wrist Pin. The cycle is completed in four strokes (see figs. 1 to 4). In fig. 1 the Inlet Valve *a* is opened by Cam *c* while *b* is kept closed and the explosive charge is sucked into the Cylinder. In fig. 2 both valves are kept closed and the charge is compressed. In fig. 3 the charge is exploded by a spark at the Spark Plug *l* at about the beginning of the stroke, and the working stroke takes place, both valves being kept shut. In fig. 4 the Exhaust Valve *b* is opened by Cam *d* while *a* is kept shut, and the products of combustion escape through *b*.

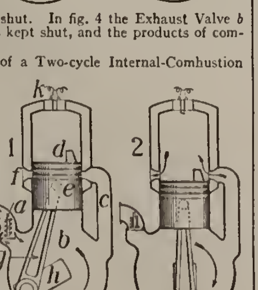


Diagram showing operation of a Two-cycle Internal-Combustion Engine. *a* Inlet Valve automatically operated by suction of Engine Piston *e*; *b* Crank Chamber; *c* Passage connecting *b* with inside of Cylinder; *d* Projection on Piston; *f* Exhaust Port; *g* Connecting Rod; *h* Crank; *k* Spark Plug. The cycle is completed in two strokes (see figs. 1 and 2). In fig. 1 the Piston is moving upward, compressing the explosive charge pushed in during the previous down stroke, and sucking in a supply of the explosive mixture into *b* through *a*. In fig. 2 the mixture or charge is exploded in the cylinder by a spark at the Spark Plug, at about the beginning of the down stroke, and the working stroke takes place. As the Piston moves downward, it uncovers *f*, through which the products of combustion escape, being displaced by a new charge which is forced from the Crank Chamber by the downcoming Piston, through *c* into the Cylinder, the Projection *d* deflecting the charge to the top of the Cylinder, so as to more effectually replace the exhaust gases.

internal energy. *Physics.* The total amount of energy, kinetic and potential, possessed by the molecules of a body and their ultimate parts, owing to their relative positions and their motions inside the body, excluding the energy due to the passage of waves through the body and to vibrations of the body.
internal gear. *Mach.* A gear in the form of an annular rim with teeth formed on the inside diameter.
internal iliac artery. The hypogastric artery.
in'ter·nal'i·ty (ĭn'tẽr·năl'ĭ·tĭ), *n.* State or quality of being internal, or within; interiority.
in·ter'nal·ize (ĭn·tûr'năl·īz), *v. t.* To make internal, or subjective. — **in·ter'nal·i·za'tion** (-ĭ·zā'shŭn; -ī·zā'-), *n.*
internal liability. See LIABILITY, 3.
in·ter'nal·ly (ĭn·tûr'năl·ĭ), *adv.* **1.** Inwardly; within the termini, enveloping surface, or the boundary of a thing; within the body; beneath the surface.
2. Hence: Mentally; spiritually.
3. In, or in respect to, the inner constitution or affairs of anything; as, a doctrine *internally* inconsistent.
internal mammary artery. A branch of the subclavian artery of each side which runs down along the anterior wall of the thorax, resting against the costal cartilages.
internal mammary vein. *Anat.* The vein accompanying the internal mammary artery of each side.
internal medicine. *Med.* That branch of medicine dealing with the diagnosis and treatment of diseases of the interior of the body.
internal navigation. Inland navigation.
internal necessity. See NECESSITY, 6 a.
in·ter'nal·ness (ĭn·tûr'năl·nĕs; -nĭs; 119), *n.* See -NESS.
internal orbital convolution. See ORBITAL LOBE a.
internal phase. *Physical Chem.* A dispersed phase.
internal porch. A vestibule or lobby. Cf. NARTHEX, 2.
internal pressure. *Physics.* Pressure inside a portion of matter, due to attraction between molecules.
internal pterygoid. a See MESOPTERYGOID **b. b** See PTERYGOID MUSCLE.
internal pudendal artery *or* **vein.** See PUDENDAL, *adj.*
internal relation. *Philos.* A relation which is involved in, or essential to, the nature of the thing related. The *theory of internal relations* is the doctrine that all relations are internal, and every part of reality is intrinsically related to every other.
internal respiration. *Physiol.* The interchange of oxygen and carbonic acid between the cells of the body and the fluid blood plasma bathing them.
internal revenue tax. *Econ.* See EXCISE, 2.
internal rhyme. A rhyme between one word within a verse and another, either at the end of the same line or within the same or an adjoining line. Cf. END RHYME.
internal salt. *Chem.* An inner salt.
internal saphenous vein. See SAPHENOUS, *adj.*
internal sense. Inner sense.
internal speech. Inner speech.
internal thread. *Mach.* See SCREW THREAD.
internal work. *Physics.* Work done in increasing the kinetic energy of the molecules of a body by producing intramolecular vibrations or rotations, or done against the molecular forces in the body; also, work done at the expense of the kinetic energy of the molecules or by the molecular forces. Cf. EXTERNAL WORK.
in'ter·nar'i·al (ĭn'tẽr·nâr'ĭ·ăl), *adj.* See INTER- c.
in'ter·na'sal (ĭn'tẽr·nā'zăl; -z'l), *adj.* Between the nostrils; — applied, specif., *Anat. & Zool.,* to any of several scales (sometimes only one) on the forehead behind the rostral, in certain reptiles. — *n.* An internasal plate or scale.
in'tern·a'tion (ĭn'tẽrn·ā'shŭn), *n.* Act of interning, or state of being interned.
in'ter·na'tion (ĭn'tẽr·nā'shŭn), *n.* See INTER-, g.
in'ter·na'tion·al (ĭn'tẽr·năsh'ŭn·ăl; -'l), *adj.* [*inter-* + *national.*] **1.** Between or among nations or their citizens; pertaining to the intercourse of nations; participated in by two or more nations; common to or affecting two or more nations; as, *international* law, commerce.
2. [*cap.*] Of or concerning any of the associations called *International* (see INTERNATIONAL, *n.,* 2).
3. [*cap.*] Of or pertaining to the International Code; as, they hoisted an *International* "B."
☞ For most phrases beginning with the word *international*, see the second word of the phrase.
in'ter·na'tion·al, *n.* **1.** A person having relations or obligations to two nations, as a naturalized citizen; also, a participant in an international contest.
2. [*cap.*] The International Workingmen's Association (see *First International*, below), or any one of several other working-class Socialist organizations of international scope: **a** ***Amsterdam International,*** The International Federation of Trade-Unions. **b** ***Communist International,*** = *Third International*, below. **c** ***First International,*** orig., the ***International Workingmen's Association,*** an association founded in London in 1864 and dissolved in Philadelphia in 1876, Karl Marx being its moving spirit, and his socialistic doctrines its chief motive. Cf. SOCIALISM. **d** ***Green International,*** an international organization of the peasants of Central European countries, united esp. for social and economic purposes. Cf. GREEN, *n.,* 6. **e** ***Labor and Socialist International,*** an organization formed at Hamburg, Germany, in May, 1923, by the merging of the Second International and the Vienna International. Its headquarters are at London. **f** ***Moscow International, Red International,*** = *Third International*, below. **g** ***Red International of Labor Unions,*** an industrial organization, chiefly Russian, formed in 1921 under the auspices of the Third International, as a "militant international committee for the reorganization of the trade-union movement." Its headquarters are at Moscow. Abbr., *R. I. L. U.* **h** ***Second International,*** an organization founded by delegates from many countries at Paris in 1889 to celebrate the hundredth anniversary of the French Revolution. It became merged in the Labor and Socialist International. **i** ***Socialist Youth International,*** an international socialist organization of youth formed in May, 1923, for the protection of young workers. **j** ***Third International,*** called also *Communist International, Moscow International,* and *Red International,* an organization, founded at Moscow in March, 1919, by delegates from twelve different countries, as a protest against the inactivity and bourgeois character of the Second International and as a call to communists all over the world to support the Russian Revolution and inaugurate similar movements in other countries. It is still predominantly Russian. **k** ***Vienna International,*** an organization formed at Vienna in Feb., 1921, by various socialist parties, soon merged with the Labor and Socialist International. Called also the ***Two-and-a-half International.***
3. [*cap.*] A rallying song of communism. It was composed in French by Eugène Pottier in 1871 and set to music by Adolphe Degeyter.
4. *pl.* Short for INTERNATIONAL STOCKS. *Stock Exchange.*
International Association of Lions Clubs. See LION, 6.
International Association of Rotary Clubs. See ROTARIAN.
international auxiliary language. Any natural or artificial language used or designed for international intercourse. Latin was the international language of scholarship until after the close of the Middle Ages, and is still that of the Roman Catholic Church; French was long that of diplomacy; and English is today virtually that of trade and commerce. The artificial languages, of which over 100 have been devised, are characterized by phonetic spelling, by simplicity and regularity of syntax, forms, and word derivation, and by freedom from idiomatic phrases. Descartes in 1629 distinguished two types: the philosophical, in which every sound has an a priori significance; and that in which words and suffixes of natural languages are employed. The most important are: ***Volapük*** (which see); ***Esperanto*** (which see); ***Latino sine flexione,*** or ***Interlingua,*** devised by Peano, Turin, Italy, 1903; ***Ido*** (which see). Among others are ***Nov-Esperanto,*** a slightly modified Esperanto, proposed by R. de Saussure, 1925; ***Occidental,*** devised by de Wahl; and ***Arulo,*** devised by M. Talmey, New York, 1925. The only recent a priori language is ***Ro*** (which see). Cf. NOVIAL.
International Bible Students' Association. See RUSSELLITE.
International Bureau. *Radio.* The Bern Bureau.
International Code. 1. a A marine code adopted by all the leading nations, by the use of which vessels can hold communication at sea. Twenty-six flags are used, nineteen square, two swallow-tailed, and five pointed pennants, each standing for a different letter of the Roman alphabet. There is also an additional triangular code flag, or answering pennant. See Plate VII. These are hoisted in various combinations, each combination representing, according to the code, a different word, phrase, or sentence. **b** *Radio.* [*not caps.*] The continental code.
2. Short for INTERNATIONAL CODE OF BOTANICAL NOMENCLATURE, INTERNATIONAL CODE OF ZOOLOGICAL NOMENCLATURE.
International Code of Botanical Nomenclature. A system of applying the Latin names of plants adopted by most European and some American botanists (cf. AMERICAN CODE) at a botanical congress held in Vienna in 1905; hence, between 1905 and 1930, often called ***Vienna code*** or ***Vienna rules*** in America. In 1930 an international botanical congress held at Cambridge, England, revised it. It provides that botanical nomenclature for most plants (the binomial system) shall start with Linnaeus's *Species Plantarum* of 1753, and that most plants shall bear their first applicable name, except that certain well-established plant names are retained rather than replaced with older ones. These retained names are published in a list of ***nomina conservanda.*** The code provides also for the rejection of all homonyms, and of tautonyms (e. g. *Sassafras sassafras*) and that the publication of all new species after January 1, 1931 shall be accompanied by a Latin diagnosis.
☞ In the Latin names of plants occurring in definitions, this Dictionary follows the International Code of Botanical Nomenclature, except for certain specific names for which no International Code name has been established through publication. In these instances the name used is that made available by the botanical literature covering the region where the plant is found.
International Code of Zoological Nomenclature. A system of applying the Latin names of animals, adopted by zoologists at a meeting of the International Zoological Congress at Berlin in 1904, which provides that zoological nomenclature shall start with Linnaeus's *Systema Naturae*

drag′rope′ (drăg′rōp′), *n.* A rope with which anything is dragged, or that drags from a thing; specif.: **a** A rope, with a short chain and a hook, attached to an artillery carriage and used in emergencies in dragging it or locking its wheels. **b** *Aeronautics.* The rope dropped from an aerostat for use as a variable ballast, as a brake, or as a mooring line.

drag sail *or* **sheet.** *Naut.* A sea anchor made from a sail or piece of canvas. See SEA ANCHOR.

drag′saw′ (drăg′sô′), *n.* A saw the teeth of which are slanted so as to cut on the pulling stroke; specif., a large power-operated saw for sawing felled trees. — **drag′saw′**, *v. t. & i.* — **drag′saw′ing** (-sô′ĭng), *adj. & n.*

drag scraper. a A drag (sense 2 **b**). **b** See SCRAPER.

drag seine. A dragnet.

drags′man (drăgz′măn), *n.; pl.* -MEN (-mĕn). A driver of a drag; also, one who works with a drag.

drag′staff′ (drăg′ståf′), *n.* A trailing pole pivoted on the rear of a vehicle to check any backward movement.

drag′-stone′ mill. *Metal.* A mill in which ores, etc., are ground by means of a heavy stone dragged around on a circular or annular stone bed.

drag tooth. *Saws.* = RAKER, 1 **f.**

drag twist. *Mining.* A spiral hook at the end of a rod for cleaning drilled holes.

drag washer. *Ordnance.* A wheel washer for a gun carriage, with a hook for the attachment of a dragrope.

drag wire. *Aeronautics.* A member of a truss in the wing, and also in the wing support, of an airplane, for sustaining the backward reaction due to the drag of the wing.

drail (drāl), *v. t. & i.;* DRAILED (drāld); DRAIL′ING. [Prob. a blend of *trail* and *draw* or *drag.*] **a** *Obs. exc. Dial.* To trail; draggle. **b** To fish by trolling with a drail.

drail, *n.* [From DRAIL, *v.*] **1.** A hook with a lead-covered shank used in trolling or heave-and-hauling for fish, esp. bluefish. *U. S.*
2. *Agric. Mach.* In a plow, a notched iron to which the horses are hitched. It projects from the beam. *Eng.*

drain (drān), *v.;* DRAINED (drānd); DRAIN′ING. [AS. *drēhnigean, drēahnian,* to drain, strain; akin to E. DRY.] *Transitive:* **1.** To draw off by degrees; to cause to flow gradually out or off; to draw off utterly; as, to *drain* water from a tank; hence, to cause the exhaustion of.

He *drained* their treasure and hampered their industry. *Motley.*

2. To exhaust of liquid contents by drawing them off; to make gradually dry or empty; to remove surface water from, as streets, by gutters, etc.; to deprive of moisture; hence, to exhaust; to empty of wealth, resources, or the like; as, to *drain* a country of its specie; to *drain* the cup.
3. To filter. "Salt water, *drained* through earth." *Bacon.*
——, *Intransitive:* **1.** To flow off gradually.
2. To become emptied of liquor by flowing or dropping; as, let the vessel stand and *drain.*
3. To discharge its surface water, streams, etc., as in a given direction or to an outlet; as, the Middle Western States *drain* into the Gulf of Mexico.

drain (drān), *n.* **1.** Act of draining, or of drawing off; gradual outflow or withdrawal; as, the *drain* of specie.
2. That by means of which anything is drained; a channel; a trench; a watercourse, esp. a narrow one; a sewer; a sink.
3. That which is drained; a small remaining amount of liquid such as is drained off; *pl.,* dregs.
4. *pl. Brewing.* The grain from the mash tun. *Eng.*
5. *Surg.* A tube or a cylinder of absorbent material for drainage of a wound. Cf. CIGARETTE DRAIN.

☞ COMBINATIONS and PHRASES are:

drain cleaner	drain faucet	drain pump
drain cock	drain inlet	drain repairer
drain cup	drain layer	drain tester
drain digger	drainpipe	drain trap
drain exhauster	drain pit	drain valve

drain′age (drān′ĭj), *n.* **1.** A draining; a gradual flowing off of any liquid; also, that which is drained off.
2. The mode in which the waters of a country pass off by its streams and rivers.
3. Any device for draining, or material used to facilitate draining; as, to put *drainage* in a flowerpot.
4. The removal of excess water from land by means of surface or subsurface conduits; also, a system of such conduits. In *herringbone drainage,* the main drain and laterals have a herringbone arrangement. In *gridiron drainage,* two mains at an angle to each other are fed by parallel laterals discharging into each main from a single side. In *cutoff drainage,* for draining seepy hillsides, tiles are placed along the hillside to intercept the seep water and prevent its reaching the bottom land. In *sinkhole drainage,* the water is drained through an absorbing well (which see). Cf. UNDERDRAINAGE.
5. Area or district drained; as, the *drainage* of the Po.
6. *Surg.* Act, process, or means of drawing off the pus or fluids from a wound, abscess, etc.

☞ PHRASES are:

drainage area	drainage pipe	drainage tile
drainage canal	drainage pit	drainage trap
drainage gate	drainage pump	drainage tube
drainage inlet	drainage shaft	drainage tunnel
drainage inspector	drainage system	drainage well

drainage basin. *Phys. Geog.* = BASIN, 9 **c.**

drainage benefit. The betterment accruing to land from the establishment of a drainage district system of drainage, often used as a basis for taxation.

drainage coefficient. The amount of water that runs off from the area in 24 hours, expressed usually in terms of depth in inches.

drainage cycle. An erosion cycle.

drainage district. A governmental corporation or quasi corporation created by a state for the drainage of a specified territory. It usually has the power of eminent domain for its purposes, and the power to assess special taxes.

drainage level. 1 A form of Y level used in laying out farm drains. It has a horizontal circle and plumb-bob attachment. **2.** *Mining.* That level or depth to which a mine is drained, esp. by natural drainage.

drainage theory *or* **hypothesis.** *Psychol.* The theory that the dominant brain activity of any moment absorbs or drains off the energy present in any other cerebral system, — proposed as an explanation of inhibition, attention, etc.

drain arm. = 1st ARM, 2 l.

drain′board′ (drān′bōrd′; 181), *n.* Orig. a board, now a board or metal plate, set slopingly for draining, as into a sink.

draine (drĕn), *n.* [F.] The missel thrush.

drained (drānd), *adj.* **1** Emptied or freed of excess water or other liquid; also, drawn off as by pouring or flowing.
2 Deprived of vitality or vividness; dull; as, a *drained* personality.

drain′er (drān′ẽr), *n.* One who or that which drains; as: **a** A laborer who digs trenches or lays pipes for drainage. **b** A device for, or used in, draining; specif., a draining vat.

drain′er·man (-măn), *n.; pl.* -MEN (-mĕn). In papermaking, a worker who attends to draining vats.

drain grate. A grate at the entrance to a drain, esp. to an inlet or catch basin of a sewer.

drain′less (drān′lĕs; -lĭs; 119), *adj.* Impossible to drain; inexhaustible.

drain′man (drān′măn), *n.* One whose work is with drains; specif., *Eng.,* one who keeps drains or drain traps open.

drain pit. A pit for draining an automotive vehicle.

drain rocket. A kind of firework emitting much smoke and, often, stench, used to detect leaks, etc., in drains.

drain′tile′ (drān′tīl′), *n.* A tile used in making drainpipes or in building drains.

drain well. A well for drainage; specif., absorbing well.

drai·sine′ (drȧ·zēn′), *n.* Also **drai·sene′.** [From G. *draisine,* and F. *draisi(en)ne;* after Baron Karl *Drais* of Mannheim, the inventor.] A dandy horse (which see).

drake (drāk), *n.* [AS. *draca* dragon, fr. L. *draco.* See DRAGON.] **1.** A dragon; a battle standard in the form of, or having the representation of, a dragon. *Archaic.*
2. A meteor; a firedrake. *Obs.*
3. A small piece of artillery of the 17th and 18th century.
4. Short for DRAKE FLY.
5. A ship or galley of the Norse vikings.

drake (drāk), *n.* [ME.; akin to LG. *drake,* MLG. *andrake,* OHG. *antrehho, antrahho,* G. *enterich.*] **1.** The male of any kind of duck.
2. A large stone used in the game of "duck on the rock."
3. The color drake green.

-drake (-drāk). A combining form of *drake,* n., as in: **earthdrake, firedrake, scaledrake, sheldrake.**

drake fly. A May fly, sometimes used in angling.

drake foot. See DUTCH FOOT.

drake green. Also **drake′s′-neck′ green.** A color, bluish green-blue in hue, of medium saturation and low brilliance. Cf. COLOR. — **drake′-green′**, *adj.*

Drake's drum (drāks). A ghostly warning of danger; — from a legend that whenever danger threatens England Sir Francis Drake's drum may be heard sounding a warning.

drake's′-feet′ (drāks′fēt′), *n.* Male orchis. *Dial. Eng.*

drake′stone′ (drāk′stōn′), *n.* A flat stone skipped, or for skipping, along the surface of water; also, the sport of skipping stones, sometimes called *duck and drake.*

drak′o·nite (drăk′ō·nīt), *n.* [L. *draco, -onis,* dragon + *-ite;* — alluding to G. *Drachenfels* (see *Gaz.*).] *Petrog.* A white, yellowish, or gray porphyritic trachyte with phenocrysts of sanidine, labradorite, and biotite and (or) hornblende, in a groundmass of alkali-feldspar, diopside, and alkali-amphibole, with tridymite often an accessory.

dram (drăm), *n.* [OF. *drame* (F. *drachme*), fr. L. *drachma,* drachm, drachma, fr. Gr. *drachmē,* prop., a handful, fr. *drassesthai* to grasp. Cf. DRACHM, DRACHMA.] **1. a** A weight; in *apothecaries' weight,* one eighth part of an ounce, or sixty grains (3.888 grams); in *avoirdupois weight,* one sixteenth part of an ounce, or 27.34375 grains (1.772 g.). See WEIGHT, *Table;* MEASURE, *Table.* **b** Short for FLUID DRAM.
2. A small drink, draft, or potation, specif. of distilled alcoholic liquor; as, a *dram* of poison; a *dram* of brandy.
3. A small or minute quantity; a mite; a drachm.

A *dram* of well-doing. *Milton.*

4. *Logging.* A collection of timber cribs forming a section of a large raft. *Canada.*
5. *Mining.* = TRAM, 3 **a.**

dram (drăm), *v.;* DRAMMED (drămd); DRAM′MING. *Trans.:* **1.** To measure, as silk, by certain units. See DRAMMAGE.
2. To ply with drams, or drinks. *Thackeray.*
3. *Mining.* To push drams, or trams.
——, *Intransitive:* To drink drams; to tipple.

dram (drăm), *adj.* [Gael. *trom* heavy.] Sad; melancholy; now, usually, indifferent. *Scot.*

dram (drăm), *n.* Timber from Drammen, Norway.

dra′ma (drä′mȧ; drăm′ȧ; 277), *n.* [LL., fr. Gr. *drama,* fr. *dran* to do, act; akin to Lith. *daryti.* Cf. DRASTIC.] **1.** A composition, now usually in prose, arranged for enactment, and intended to portray life or character, or to tell a story by actions and, usually, dialogue tending toward some result based upon them; a play. It is designed, or composed as though designed, to be performed by actors on the stage.
2. Hence, in a generic or collective sense, dramatic art, literature, or affairs; as, a person skilled or versed in *drama;* a devotee of the *drama.* Drama developed more or less independently with the ancient Greeks, the Hindus of the first centuries A.D., and the Chinese, probably from primitive religious festivals and imitative dances (see DANCE) and, esp. in the East, from puppet shows, shadow plays, and pantomimes. The earliest European drama is the Greek, which, growing up in connection with the festival of Dionysus (see CHORUS, DIONYSIA), culminated in Attica, where the festival came to be celebrated by the performance of a tetralogy, consisting of one comedy and a trilogy of serious plays or tragedies celebrating a connected series of mythic episodes (cf. COMEDY, TRAGEDY). In medieval Europe, *mystery, miracle,* and *morality* plays, acted in connection with church festivals, preceded the appearance, during the Renaissance, of the modern secular drama, which has developed, besides *tragedy* and *comedy, tragicomedy, melodrama, opera, burletta, farce,* etc. See THEATER; PHOTOPLAY; UNITY.
3. A series of real events invested with a dramatic unity and interest. "The *drama* of war." *Thackeray.*

dra′ma do tra·mo′ya (drä′mä dä trä·mō′yä). [Sp., fr. *tramoya* stage device.] A type of spectacular Spanish play of the 16th century.

dra′ma league (drä′mȧ; drăm′ȧ). An association of patrons and devotees of the drama.

dra′ma·logue (drä′mȧ·lŏg; drăm′ȧ-; 185), *n.* A reading of a play or plays to an audience.

dra·mat′ic (drȧ·măt′ĭk), *adj.* [LL. *dramaticus,* fr. Gr. *dramatikos,* fr. *drama.*] **1.** Of or pertaining to the drama; vivid; expressed with or as if with action.

The emperor . . . performed his part with much *dramatic* effect. *Motley.*

2. Specif., of or pertaining to, devoted to, or concerned specifically or professionally with, current drama or the contemporary theater; as, a *dramatic* agent, critic, event.
3. *Music.* Serving to accompany some form of drama or having dramatic characteristics.

Syn. — DRAMATIC, THEATRICAL, MELODRAMATIC. That is DRAMATIC which is appropriate to the drama, esp. as suggesting vividly expressive action or gesture, unexpected conjunctions, or a striking denouement; as, the *dramatic* appeal of Patrick Henry. That is THEATRICAL which is exaggerated, artificial, or tawdry in its dramatic effect; as, a *theatrical* display of grief; violent and *theatrical* gestures. That is MELODRAMATIC which is sensationally dramatic; as, Don't be *melodramatic* and make a scene.

dra·mat′ic (drȧ·măt′ĭk), *n.* A dramatist. Cf. DRAMATICS. *Obs.*

dra·mat′i·cal (-ĭ·kăl), *adj.* Dramatic (sense 1).

dra·mat′i·cal·ly, *adv.* of DRAMATIC, DRAMATICAL.

dramatic conflict. Opposition of forces internal or external which provides a theme for drama.

dramatic irony. Irony produced by incongruity between a dramatic situation and accompanying or preceding words or actions whose inappropriateness it reveals.

dra·mat′i·cism (drȧ·măt′ĭ·sĭz′m), *n.* Dramatic character.

dra·mat′i·co- (drȧ·măt′ĭ·kō-). A combining form for dramatic, denoting *dramatic and,* as in *dramatico-musical.*

dramatic overture. The orchestral prelude to an opera.

dramatic poetry. Poetry having dramatic quality or form.

dramatic present. *Gram.* The historical present.

dra·mat′ics (drȧ·măt′ĭks), *n. sing. & pl.* **a** Dramatic writings or performances, now usually by a group of amateurs, as for an extracurricular activity in college; — usually construed as pl. **b** Skill in the performance of drama, esp. amateur performance; — usually construed as singular.

dramatic tenor. *Music.* See TENOR.

dra·mat′i·cule (drȧ·măt′ĭ·kūl), *n.* [L. *drama, -atis,* drama + a dim. ending.] A little drama. *Rare.*

dramatic unities. See UNITY.

dram′a·tism (drăm′ȧ·tĭz′m), *n.* Dramatization; dramatic manner or form.

dram′a·tis per·so′nae (drăm′ȧ·tĭs pẽr·sō′nē). [L.] The characters or actors in a drama or play, or, by extension, in a novel, poem, or the like; also, the participants in an actual dramatic event or series of events.

dram′a·tist (drăm′ȧ·tĭst), *n.* An author of a dramatic composition; a playwright.

dram′a·ti·za′tion (-tĭ·zā′shŭn; -tī·zā′shŭn), *n.* **1.** Act or result of dramatizing; specif., a dramatized version.
2. *Psychoanalysis.* The transformation which the underlying dream thoughts undergo, into dramatic and pictorial form, before they can take part in the actual dream.

dram′a·tize (drăm′ȧ·tīz), *v.;* -TIZED (-tīzd); -TIZ′ING (-tīz′ĭng). [Cf. F. *dramatiser.*] *Transitive:* **1.** To relate in the form of the drama; to make into a drama; to adapt to dramatic representation; as, to *dramatize* a historical episode.
2. To represent or recount in a dramatic manner.

Dramatizing a dry fact into flesh and blood. *Lowell.*

3. To give the character of a theatrical representation to, as one's acts; to make a dramatic scene of; as, to *dramatize* one's departure; also, to regard (oneself) as playing a part in a theater; to display one's conception of (oneself) outwardly; as, to have the habit of *dramatizing* oneself.
——, *Intransitive:* **1.** To admit of being dramatized.
2. To dramatize oneself.

dram′a·tiz′er (-tīz′ẽr), *n.* One who dramatizes.

dram′a·turge (-tûrj), *n.* [F.] A dramaturgist.

dram′a·tur′gic (-tûr′jĭk), *adj.* Also **dram′a·tur′gi·cal** (-jĭ·kăl). Relating to dramaturgy; dramatic; theatrical.

dram′a·tur′gy (drăm′ȧ·tûr′jĭ), *n.* [F. & G. *dramaturgie,* fr. Gr. *dramatourgia* dramatic composition, fr. *dramatourgos* dramatist, fr. *drama* drama + *-ergos* worker, working. See DRAMA; WORK.] Art of dramatic composition and representation. — **dram′a·tur′gist** (-jĭst), *n.*

‖**drame** (drăm), *n.* [F.] A type of drama blending comic and tragic elements usually with a happy ending.

dram filler. *Mining.* A danner. *Eng.*

dramm (drăm), *n.* [Serb. *dram,* through Turk. fr. Gr. *drachmē.* See DRACHMA.] See WEIGHT, *Table.*

dram′mage (drăm′ĭj), *n.* The weight in drams of a 1,000-yard skein of silk or rayon; — used as a measure of size.

‖**dram′ma per mu′si·ca** (drăm′mä pẽr mōō′zē·kä). [It.] *Music.* An early type of lyric drama, precursor to opera.

dram′mer (drăm′ẽr), *n.* One who drams; as: **a** One who drams silk or rayon. **b** A tippler. **c** One who pushes drams, or trams.

dram′mock (drăm′ŭk), **drum′mock** (drŭm′-), *n.* [Cf. Gael. *dramaig* a foul mixture.] A mixture, generally raw, of meal and water. *Scot., N. of Eng., & Ir.*

dram′sell′er (drăm′sĕl′ẽr), *n.* A seller of distilled liquors by the dram.

dram′shop′ (-shŏp′), *n.* A place where spirituous liquors are sold by the dram or drink; a barroom.

drang (drăng), *n.* [AS. *thringan* to press; cf. AS. *thrang* a throng.] A narrow lane, as between hedges. *Dial. Eng.*

‖**Drang′ nach Ost′en** (dräng′ näк ôs′tĕn). [G.] Pressure or thrust toward the East; — expressing esp. the policy of the German expansionists, who urged political and commercial advances toward the East, esp. in Asia.

drant, draunt (drănt; dränt; drônt), *n.* **a** A drawling or drowning tone. **b** A slow, dull tune. — *v. i.* To drone; to drawl; to pass time tediously. *Both Scot. & Dial. Eng.*

Drap′ar·nal′di·a (drăp′ẽr·năl′dĭ·ȧ), *n.* [After Jacques P. R. *Draparnaud* (1772–1805), French botanist.] *Bot.* A genus of green algae (family Chaetophoraceae).

‖**drap′ d'ar′gent′** (drȧ′ dȧr′zhäɴ′). [F.] Cloth of silver.

drap′-de-Ber′ry′ (drȧ′dẽ·bĕ′rē′), *n.* [F., cloth of Berry.] A kind of woolen cloth made in Berry, France. *Hist.*

‖**drap′ d'é′té′** (dȧ′tā′). [F., cloth of summer.] A thin woolen fabric having a twill weave.

‖**drap′ d'or′** (dôr′). [F.] Cloth of gold.

drape (drāp), *v.;* DRAPED (drāpt); DRAP′ING (drāp′ĭng). [F. *draper,* fr. *drap* cloth. See DRAB cloth.] *Transitive:* **1.** To make into cloth; to weave. *Obs.*
2. To cover or adorn with drapery or folds of cloth, or as with drapery; as, to *drape* a bust, a building, etc.
3. To arrange in folds; to hang; as, to *drape* a gown.
——, *Intransitive:* **1.** To make cloth. *Obs. Bacon.*
2. To design drapery, arrange its folds, etc., as for hangings, costumes, statues, etc.
3. To hang in loose folds suggestive of drapery. *Colloq.*

drape (drāp), *n.* [From F. *drap* cloth and E. DRAPE, *v.* Cf. TRAP to adorn.] **1.** Cloth; drapery; draping. *Colloq.*
2. A hanging; a curtain; specif., an overdrape.

drape (drāp), *n.* A barren cow or ewe, esp. one selected for slaughter. — *adj.* Barren; farrow. *Both Dial. Eng.*

‖**dra′peau′** (drȧ′pō′), *n.* [F.] Flag; standard.

drap′er (drāp′ẽr), *n.* **1.** [AF. (OF. *drapier*).] Formerly, one who makes cloth; now, one who sells cloths; a dealer in dry goods; as, a *draper* and tailor.
2. [From DRAPE, *v.*] One who drapes or arranges draperies.

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drab (drȧ). Var. of DRAA. See FIX [DRAGGLE] to drabble.] **drai′gle** (drā′g'l). Scot. var. of **drai′gon** (drā′gŏn). Scot. var. of DRAGON.
drain′a·ble, *adj.* See -ABLE. **draining board.** = DRAINBOARD. **draining tile.** = DRAINTILE. **draish.** Var. of THRASH, *v.* **dram′a·tiz′a·ble** (drăm′ȧ·tīz′ȧ·b'l), *adj.* See -ABLE. [DRAMMOCK.] **dram′mach** (drăm′ăk). Var. of **dramme** (drăm), *n. sing. & pl.* [NGr. *drami.* See DRAM.] See WEIGHT, *Table.*
drammed (drămd), *past tense & past part.* of DRAM. [*n.* of DRAM.] **dram′ming,** *pres. part. & verbal* **drane** (drān). Dial. Eng. var. of DRONE, drawl; DRONE, bee.
drank (drăngk), *past tense, also improper past part.,* of DRINK. **drank,** *n.* Erroneously for *drauk,* var. of DRAWK. ‖**drap** (drȧ), *n.* [F.] Cloth.
drap (drăp). Scot. and dial. Eng. var. of DROP. — **drap′ping** (drăp′ĭn), *pres. part. & verbal n.* **drap′a·ble** (drăp′ȧ·b'l), **drape′a·ble,** *adj.* See -ABLE.

Art, Including Music

On this composite page are specimen definitions of terms in Art, including Music, which reveal the richness and usefulness of information available on these subjects in this New Merriam-Webster.

Schools of Art are defined, as *Barbizon school, Flemish school.* Movements and processes in Art are described, as *futurism, fresco, etching, Yuzen process.* Names of many famous paintings and statues are given, and their location indicated, as *Sistine Madonna, Venus de Medici.*

Forms of Music are defined, as *canon, sextet, sonata form, counterpoint, chamber music, jazz.* Names of some of the most famous Operas and Songs are given, as *La Bohème, barcarole, Annie Laurie, Auld Lang Syne.* In many cases a pictorial illustration accompanies the definition of a musical instrument, as *clarinet.*

art (ärt), *n.* [OF., fr. L. *ars, artis.* See 1st ARM, *n.*; cf. ARTIAD, ARTICLE, INERT.] **9.** Application of skill and taste to production according to aesthetic principles; an occupation having to do with the theory or practice of taste in the expression of beauty in form, color, sound, speech, or movement. Specif., such application to the production of beauty in plastic materials by imitation or design, as in painting and sculpture; as, he prefers *art* to literature. See FINE ARTS. *Art* (in this sense) is prefixed to definitions in this Dictionary to indicate the field in which the word or sense is typically used.

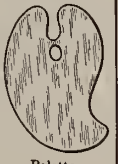
All ages must owe a debt to Greece for the simple beauty, the sanity, the healthfulness of the ideal element which she introduced into *art*, making it for the first time in history a true exponent of the human spirit. *Percy Gardner.*

Flemish school. *Painting.* A school, so called, including most of the leading Flemish and Belgian painters from the 15th to the 19th century. Their most nearly common attributes were forceful brushwork, attention to detail, fidelity to nature, and solid color. Hubert and Jan van Eyck were founders of the school and Memling and Massys were among its early exemplars, while the greatest of its later names are Rubens, Van Dyck, and Teniers the Younger.

post'im·pres'sion·ism (pōst'ĭm·prĕsh'ŭn·ĭz'm), *n.* *Art.* The theory or practice of certain artists in reaction against the scientific and naturalistic character of impressionism and neoimpressionism, characterized esp. by emphasis on the visual impression. Since postimpressionism stresses self-expression instead of naturalistic representation it is a form of expressionism, cubism being one of its logical phases. Cézanne, Matisse, and Derain (see *Biog.*) are among its conspicuous exponents. — **post'im·pres'sion·ist** (-ĭst), *n. & adj.* — **post'im·pres'sion·is'tic** (pōst'ĭm-prĕsh'ŭn·ĭs'tĭk), *adj.*

Ti'tan·esque' (tī'tăn·ĕsk'), *adj.* [*Titan* + *-esque.*] Characteristic of the Titans; Titanic.

pal'ette (păl'ĕt; -ĭt; 119), *n.* [F. See PALLET a thin board.] **1. a** A thin oval or square board or tablet, with a thumb hole at one end for holding it, or, by extension, any object, as a table top of glass or porcelain, on which a painter lays and mixes his pigments. **b** The set or assortment of colors put on the palette, as by a particular artist.


Palette.

palette knife. A knife, having a very flexible steel blade and no cutting edge, used by painters to mix colors, by printers for distributing ink, etc.; a spatula. See KNIFE, *Illust.*

sculp'ture (skŭlp'tūr), *n.* [L. *sculptura.*] **1.** Act or art of carving, cutting, or hewing wood, stone, metal, etc., into statues, ornaments, etc., or into figures; hence, the act or art of producing figures and groups, whether in plastic or hard materials, but now esp. in marble or bronze. **2.** Carved work in stone, wood, metal, etc.

school, *n.* [ME. *scole,* fr. AS. *scōl* (fr. L.), and fr. OF. *escole* (F. *école*), fr. L. *schola,* fr. Gr. *scholē* leisure, that in which leisure is employed, disputation, lecture, a school; akin to Gr. *schēma.* See SCHEME.] **16.** *Fine Arts.* **a** A group, as of painters, sculptors, or musicians, under a common local or personal influence producing a general similarity in their work; as, the Wagnerian *school.* **b** The artists or art of a country or region. ☞ PHRASES are:

Barbizon school	French school	Sienese school
Eclectic school	Italian school	Tuscan school
Flemish school	Lombard school	Umbrian school
Florentine school	plein-air school	Venetian school

fu'tur·ism (fū'tūr·ĭz'm), *n.* A radical movement in art, music, and literature, originating in Italy about 1910 and characterized esp. by violent rejection of tradition and convention, and by the effort to give direct, untrammeled, personal expression to the dynamic energy and movement inherent in the life of today.

fres'co (frĕs'kō), *n.*; *pl.* -COES or -COS (-kōz). [It., fr. *fresco* fresh, of Teut. origin. See FRESH.] **1.** A cool, refreshing state of the air; shade. Cf. ALFRESCO. *Obs.* **2. a** The art or method of painting on freshly spread plaster before it dries; — called specif. ***true fresco*** or ***buono fresco.*** The pigments are applied with water as a vehicle, and the lime of the ground, which penetrates the painting, is converted by exposure into carbonate, which acts as a binding material. **b** A similar but inferior method in which the plaster is first allowed to harden and partially dry; — called specif. ***fresco secco.*** **c** Loosely, painting on plaster in any manner. **d** A fresco painting.

Sistine Madonna. A famous Madonna painted by Raphael near the end of his life for the Church of St. Sixtus (San Sisto) at Piacenza and now in the Royal Gallery at Dresden. It represents the Virgin holding the Child and advancing in clouds composed of cherubs' faces, with St. Sixtus kneeling at her right, St. Barbara at her left, and two cherubs below.

Bar'bi·zon, *or* **Bar'bi·son, school** (bär'bĭ·zŏn; *F.* bȧr'bē'zôɴ'). *Painting.* A French school of the middle of the 19th century centering in the village of Barbizon near the forest of Fontainebleau. For certain truths its members went straight to nature in disregard of academic tradition, treating their subjects faithfully and with poetic feeling for color, light, and atmosphere. It is exemplified, esp. in landscapes, by Corot, Rousseau, Daubigny, Jules Dupré, and Diaz. Associated with them are certain painters of animals, as Troyon and Jacque, and of peasant life, as Millet and Jules Breton.

Ve'nus de' Me'di·ci (dā mĕd'ē·chē). [After Cosmo *de' Medici* III, who brought the statue to Florence.] A statue of Greco-Roman times, in Parian marble, representing Venus looking toward the left, her hands held in front of her body, found in Hadrian's Villa at Tivoli and brought about 1680 to Florence, where it stands in the Uffizi Gallery. The signature of Cleomenes on the base is considered a modern forgery.

chi·a'ro·scu'ro (-skū'rō), **chia'ro–o·scu'ro** (-ō·skū'rō), *n.*; *pl.* -ROS (-rōz). [It., clear dark.] **1.** The style of pictorial art that employs only light and shade, omitting the various colors; black and white; as, a sketch in *chiaroscuro*; also, a sketch in black and white. **2. a** The arrangement or treatment of the light and dark parts in a work of art, such as a drawing or painting, whether in monochrome or in color. **b** The art or practice of so arranging the light and dark parts as to produce a harmonious effect. Also, in literary composition, the juxtaposing of contrasting moods, methods, etc. **3.** A former process of wood engraving and printing in which separate blocks were used to give the tints or hues. **4.** Grisaille decoration on pottery as practiced in Italy.

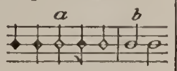
etch'ing (ĕch'ĭng), *n.* Act or process of one who or that which etches; also, the result or product of such act or process; specif.: **a** The art of producing pictures or designs by means of etched plates. In etching, the plate is first covered with varnish or some other acid-resistant ground, on which the drawing is scratched with a needle or similar instrument; the plate is then covered with acid, which corrodes the metal in the lines thus laid bare. Impressions are then taken in ink from this plate. ***Soft-ground etching*** differs from ordinary etching in that the ground is softened by mixture with tallow and the design, drawn with a pencil on a sheet of paper, laid over the ground. **b** A design produced by etching. **c** An impression on paper, parchment, etc., taken in ink from an etched plate.

trip'tych (trĭp'tĭk), *n.* [Gr. *triptychos* consisting of three layers, or plates, fr. *tri-* (see TRI-) + *ptyx, ptychos,* a fold, layer.] **1.** A picture or carving in three compartments side by side; esp., a picture serving as an altarpiece, and consisting of a central panel, and two flanking panels of half its size that fold over it. Cf. DIPTYCH **c**, PENTAPTYCH. **2.** A folding writing tablet in three parts.

Yuzen process. [After *Yuzen* (fl. 17th cent.), the Jap. inventor of the process.] In Japan, a secret process of dyeing a painted fabric, such as habutai (which see), silk crepe, or velvet, allowing for fidelity of design, boldness of line, and the use of rich colors.

coun'ter·point', *n.* [F. *contrepoint.* See COUNTER, *adv.*; POINT, *n.* Cf. CONTRAPUNTAL.] *Music.* **a** A melody added to a given melody (*cantus firmus*) as accompaniment. **b** The art of plural melody, that is, of melody not single, but moving attended by one or more related but independent melodies. ***Strict,*** or ***plain, counterpoint*** forbids appoggiaturas and chromatic tones, and its harmonic basis is limited to triads and their first inversion; — distinguished from *free counterpoint.* It is generally divided into five species: note against note of the cantus firmus, two notes to one, four notes to one, syncopated, and figurate or florid counterpoint. It is ***single, double,*** or ***triple, counterpoint*** according to the invertibility of the voice parts (see SINGLE, etc.). **c** Music in parts; melodic part writing; polyphonic music. See POLYPHONY.

min'im (mĭn'ĭm), *n.* [L. *minimus* the least, smallest, a superl. fr. the root of *minor*; cf. F. *minime,* It. *minima* a note in music. See MINOR; cf. MINIMUM.] **1.** *Music.* A half note, formerly the shortest in use (see MENSURABLE MUSIC), now written with stem and outlined head, and having the time value of half a whole note or of two quarter notes. See NOTE, *n.,* 1.



Forms of the Minim, 1: *a* Medieval; *b* Modern.

can'on (kăn'ŭn), *n.* [ME. *canon, canoun,* fr. AS. *canon* rule, fr. L. *canon* a measuring line, rule, model, fr. Gr. *kanōn* rule, rod; akin to Gr. *kanna* reed. See CANE; cf. CANONICAL.] **11.** *Music.* A composition in two or more voice parts, employing *imitation* (which see) in its strictest form. The melody of the leading part, at a few beats from its beginning, is taken up by another part and imitated precisely, but often at a different interval, throughout its extent. The canon either winds up with a *coda* (tailpiece), or, as each part finishes, commences anew, in this latter case forming a "perpetual canon" or "circular canon."

‖**can'tus fir'mus** (fûr'mŭs). [ML.] **a** Literally, fixed song; the plain chant or simple Gregorian melody, prescribed as to form and use by ecclesiastical tradition. It was originally sung in unison or in octave. With the beginning of counterpoint it was sung without change by the tenor voice, in distinction from the ‖**can'tus fi'gu·ra'tus** (kăn'tŭs fĭg'ū·rā'tŭs), the "figured or florid song" of the other parts moving above and below it with relative freedom. **b** Hence, any melodic theme or subject for contrapuntal treatment.

po·lyph'o·ny (pō·lĭf'ō·nĭ; pŏl'ĭ·fō'nĭ), *n.* [Gr. *polyphōnia.*] **1.** Multiplicity of sounds, as in reverberations of an echo. **2.** *Music.* Composition in simultaneous and harmonizing but melodically independent and individual parts of voices; contrapuntal composition; — opposed to *homophony.*

clar'i·net' (klăr'ĭ·nĕt'; klăr'ĭ·nĕt; -nĭt; 277), *n.* [F. *clarinette,* dim. of *clarine* a kind of bell, fr. L. *clarus.* See CLEAR; cf. CLARION.] *Music.* **a** A wind instrument, consisting of a cylindrical tube with a bell-shaped opening at one end, and a mouthpiece at the other, having a single reed and played by means of holes and keys; called also *clarionet.* It is made in several sizes, the commonest being the clarinet in B-flat, which has a compass of about 3½ octaves, d to b♭‴. See PITCH. Clarinets in B-flat and A are used in both band and orchestra, but the clarinet in E-flat is found in bands only. The tone of the clarinet is rich and expressive, especially the lowest register (called *chalumeau*). All clarinets are transposing instruments except the clarinet in C. See ALTO CLARINET, BASS CLARINET. **b** A reed organ stop, usually eight-foot, of similar quality of tone.

Clarinet.

clarinet flute. An eight-foot organ stop of labial type.

clar'i·net'ist, clar'i·net'tist (klăr'ĭ·nĕt'ĭst; klăr'ĭ·nĕt'ĭst), *n.* A performer on the clarinet.

‖**mez'zo for'te** (mĕd'zō fôr'tā). [It.] Moderately loud.

jazz (jăz), *n.* [Creole *jazz* to speed up, applied to syncopated music, of Am. Negro, and prob. African origin.] **a** *Music.* A type of American music, esp. for dances, developed from ragtime by introduction of eccentric noises and negro melodies, and now characterized by melodious themes, feverish or subtly syncopated dance rhythms, and varied orchestral coloring. **b** A dance to jazz music. **c** A quality or manner suggestive of jazz music, esp. in literary or journalistic style, as in Vachel Lindsay's *The Congo.*

bar'ca·role, bar'ca·rolle (bär'kȧ·rōl), *n.* [F. *barcarolle,* fr. It. *barcaruola,* fr. *barca* bark, barge. See BARK boat.] *Music.* **a** A popular song or melody sung by Venetian gondoliers. **b** A piece of music imitating such a song.

ral'len·tan'do (räl'ĕn·tän'dō; răl'ĕn·tăn'dō), *adj.* [It.] *Music.* Slackening; with a gradual decrease in tempo; ritardando; — used as a direction. — *n.* A passage or movement gradually decreasing in tempo.

meas'ure (mĕzh'ẽr), *n.* [ME. *mesure,* fr. OF. *mesure,* fr. LL. *mensura,* fr. *metiri, mensus,* to measure; akin to Gr. *metron* a measure, Skr. *mātra,* Lith. *metas* time, year, AS. *mǣth* measure, *mǣl* a measure, meal, Skr. *māti, mimāti,* he measures. Cf. DIAMETER, DIMENSION, IMMENSE, MEAL repast, MENSURABLE, 1st METER, MOON.] **17.** *Music.* **a** The group or grouping of beats made by the regular recurrence of primary, or heavy, accents, the position of which is marked on the staff by bars just before them. Hence, the notes or rests between two adjacent bars. See TIME, *n.,* 22. **b** = TEMPO. *Rare.*

An'nie Lau'rie (lô'rĭ). The daughter of Sir Robert Laurie, who is addressed in the famous Scottish love song written about 1700 by one William Douglas.

ma'jor (mā'jẽr), *adj.* [L., compar. of *magnus* great; cf. F. *majeur.* See MASTER; cf. MAYOR.] **1.** Greater in number. **8.** *Music.* **a** Greater by a half step than the minor; — of an interval equivalent to that between the keynote of a major scale and second, third, sixth, or seventh. Thus, the **major second** is the interval equivalent to that between 1 and 2 of a major scale, or one whole step; the **major third,** to that between 1 and 3, etc. See INTERVAL, 8; SCALE. **b** Based on the scale pattern of the major mode; as, the key of E *major.* See MODE, 7; SCALE, *n.* **c** Greater by a comma; — of a step or "tone." Thus, the interval C–D (9/8) of the natural scale is a *major* step, being greater by a comma (81/80) than D–E (10/9), a *minor* step. **d** Distant by a major interval; — of a tone; as, A is the *major* sixth of C. **e** See MENSURABLE MUSIC.

sex·tet', sex·tette' (sĕks·tĕt'), *n.* [L. *sextus* sixth + E. *-et.* Cf. SESTET.] **1.** *Music.* A composition in six voice parts, or for six voices or instruments; a sextuor; also, the company of six performers of such a piece.

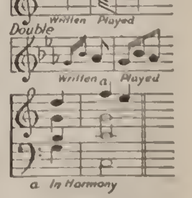
Bo'hème', La (lȧ bô'ĕm'). An opera (1896) by Puccini, based upon Mürger's novel *Scènes de la Vie de Bohème,* of life in the Latin Quarter of about 1830.

sonata form. *Music.* **a** The form of a sonata, esp. the typical form (see SONATA **b**), as used not only in the sonata proper but in the concerto, the symphony, and the string quartet and other chamber music. **b** Specif., and usually, a type of musical structure distinctive of the first movement of the sonata. It is typically based upon two themes or subjects, presented in different keys, often with transitional episodes, and conforming substantially to the following plan: (1) the ***exposition,*** giving out the principal subject in the tonic key, and the secondary subject usually in the dominant key if the tonic key is major, otherwise in the relative major; (2) the ***development,*** giving a full thematic working out of one or both subjects; (3) the ***recapitulation,*** repeating both subjects in the original key, and ending with a coda.

chamber music. Vocal or instrumental music adapted to performance in a chamber, or small audience hall.

whole'–tone' scale. *Music.* A scale progressing by whole steps, used by Debussy and other modern composers.

ap·pog'gia·tu'ra (ȧ·pŏj'ȧ·tōō'rȧ; -tū'rȧ), *n.* [It., fr. *appoggiare* to lean, rest, fr. VL. *appodiare.* See POY.] *Music.* An accessory tone preceding an essential tone, as an embellishment of melody. It is generally written as a note of smaller size. Appoggiaturas are of two kinds: **a** The *long appoggiatura,* with its time value as written, taken from the following essential tone. It is always accented and in modern music is written out as performed. **b** The *short appoggiatura,* written with a stroke through the stem and performed as quickly as possible; — called also *acciaccatura.* The *double appoggiatura* consists of two quick grace notes, a third or more apart, preceding the principal note. *Appoggiatura in harmony* is an auxiliary tone, accented or not, approached by a skip and regularly resolved degreewise.



Appoggiatura.

‖**é'tude'** (ā'tüd'), *n.* [F. See STUDY.] A study; specif., *Music,* a piece for practice of some special point of technical execution; an exercise. Also applied to certain instrumental compositions built upon a single technical motive but played for their artistic value; as, the *études* of Chopin. A ***concert étude*** is a particularly brilliant étude of this type.

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A Composite Page of Terms in Special Subjects

Philosophy and Logic

log'ic (lŏj'ĭk), *n.* [ME. *logike*, fr. OF. *logique*, fr. L. *logica*, fr. Gr. *logikē* (sc. *technē*), fr. *logikos* belonging to speaking or reason, fr. *logos* word, speech, reason. See LEGEND; cf. ANALOGY, -LOGY.] **1.** The science that deals with the canons and criteria of validity in thought and demonstration; the science of the normative formal principles of reasoning. Traditionally, logic comprises (1) the "doctrine of terms," the principles of definition, classification, and the correct use of terms; (2) the "doctrine of the judgment," or principles of correct predication; (3) the "doctrine of inference," covering reasoning or demonstration proper. Logicians are divided in their conception of the content and significance of logic. The main tendencies and bodies of doctrine are as follows: (1) ***Traditional*** or ***Aristotelian logic*** connotes the customary redactions and elaborations of the Scholastics, mainly derived from Aristotle and the Stoics, and followed by most other logicians until at least the time of Hegel. This logic is most authoritatively set forth in the Port Royal Logic. It is principally concerned with deduction. For induction, traditional logic often connotes the canons of J. S. Mill, which have been generally adopted since his formulation of them. Traditional logic takes logic to be capable of reduction to formal rules directly applicable to right thinking. (2) ***Modern*** or ***epistemological logic*** derives from Hegel, and is, perhaps, best represented in its current form by Bosanquet. It conceives all truth to be organically related, and tested by its coherence, so that nothing short of the whole of the truth can be wholly true. Hence conceptions and principles are inadequate in proportion as they are abstract, and a correct canon of right thinking cannot be formal. (3) ***Pragmatic, instrumental,*** or ***experimental logic***, of John Dewey and his followers, emphasizes thinking as an activity whereby the individual adapts himself to the environment, and the art of thinking which logic treats as concerned principally with this instrumental value of thought; it largely ignores formal principles. (4) ***Psychological logic***, or ***psychologism***, represents a movement, confined to Germany, which would substitute psychological and descriptive laws of thought for the usual normative principles. (5) ***Symbolic*** or ***mathematical logic*** is a mode of developing and representing logical principles through the use of symbols for classes, propositions, etc., rather than a theory of logic. It provides an exact canon for deduction in general, and is, usually, developed by rigorous deduction from postulates and definitions. Its adherents generally conceive logic to be exact and formal, but not directly concerned with the art of thinking.

rel'a·tiv'i·ty (rĕl'ȧ·tĭv'ĭ·tĭ), *n.*
2. *Philos.* The fact or condition of being relative as opposed to absolute or independent; state of being dependent for existence or determined in nature, value, or some other quality by relation to something else. Specif.: **a** The quality of variability arising from necessary connection with or reference to something contingent; as, the *relativity* of beauty to taste or of rights to law. **b** The mutual dependence or concomitant variability of two or more related things. **c** Dependence on the subjective nature of man, or upon limitations and peculiar character of individuals; as, the *relativity* of knowledge (which see).

space time. 1. The four-dimensional order within which every physical existent may be determined or "located" by specifying its four co-ordinates, three spatial and one temporal; also, the characteristic quality, or set of properties, of such an order.
2. The whole of physical reality, or any circumscribed portion, conceived as a four-dimensional array of perduring, extended things, or of events or event-particles.
3. *Philos.* According to S. Alexander and others, the primordial reality, conceived as having no qualities beyond the spatial and temporal, from which further qualities and higher levels of existence evolutionally emerge.

re'al·ism (rē'ăl·ĭz'm; rē'ăl-), *n.* [Cf. F. *réalisme*, G. *realismus*.] **1.** *Philos.* **a** The doctrine that universals exist outside the mind; the conception that what a general or abstract term names is an independent and unitary reality or essence. This doctrine, first formulated by Plato, is often called ***logical realism***. It is opposed to *nominalism*. Cf. CONCEPTUALISM. **b** The conception that objects of sense perception (and, sometimes, of cognition in general) are real in their own right, existing independently of their being known or related to mind; — often called ***epistemological realism***; it is opposed to *idealism*.

Ne'o-Scho·las'ti·cism, *n.* A movement begun in the middle of the 19th century among Catholic scholars, and having for its aims: (1) the restatement and exposition of the methods and teachings of the medieval Schoolmen in a manner suited to the intellectual needs of the present; (2) further speculation that makes use of the findings of modern research and is grounded on principles derived from the Greeks and the Schoolmen.

Pla'to·nism (plā'tō·nĭz'm), *n.* **1.** The philosophy of Plato (427–347 B.C.), pupil of Socrates and teacher of Aristotle, founder of the Academy, universally regarded as one of the greatest philosophers of all time. The *Dialogues* of Plato present not a unified system of philosophy but a series of developments, probably representing the progress of Plato's thought. His most famous doctrines may be summarized as follows: I. The theory of ideas or forms. The true or ultimate reality consists of transcendent universals, corresponding to perfect concepts such as may be exemplified in mathematics. These perfect, eternal realities are the objects of true knowledge. Our apprehension of them, though we are stimulated to it by sense perception, is like a reminiscence which the soul recovers of its own powers. The idea of the good, or the ideas of the good, the beautiful, and the true, are in some sense the highest. II. The things of sense are not completely real; they participate in the ideas and are like shadows of them or an admixture with these true realities of an element of nonbeing (matter). Such phenomena are objects of opinion or probable knowledge rather than of true rational insight. III. The soul of man is tripartite, including the soul of the appetitive functions, the soul of spirit or the higher feelings, and the soul of intellect or reason. The kinship of the highest or rational soul to the ideas evidences its immortality. IV. The right life is one which is directed by reason, but in which the necessary appetitive functions are performed with pleasure. Such pleasures of the body, however, are subordinated to pleasures of the mind and particularly to contemplation of that beauty and perfection represented by the ideas, to which the rational soul is akin. V. The ideal state (the "Republic") would be an aristocracy, with three castes, artisans, soldiers, and (the highest, not hereditary), philosopher rulers. The life prescribed for the ruling caste is monastic to a high degree, and communistic.

Psychology and Psychiatry

be·hav'ior, be·hav'iour (bē·hāv'yẽr), *n.* [From *behave*; cf. HAVIOR.]
4. *Psychol.* The individual's activities, considered as eventuating either visibly in muscular movement or invisibly in glandular secretion. The former is sometimes called ***explicit behavior***, the latter ***implicite behavior***.

be·hav'ior·ism (-ĭz'm), *n.* *Psychol.* The doctrine that psychology should use only observations and concepts relating to behavior, and should exclude all reference to sensations, feelings, and images, and also to thinking except as this can be regarded as implicit behavior. See BEHAVIOR, 5. — **be·hav'ior·ist** (-ĭst), *n.* & *adj.*

‖**Ge·stalt'** (gĕ·shtält'), *n.*; *pl.* GESTALTEN (-shtäl'tĕn). [G.] Literally, form; shape; specif., *Psychol.*, a structure or system of phenomena, whether physical, biological, or psychological, so integrated as to constitute a functional unit with properties not derivable from its parts; also, the pattern or figure assumed by such a system.

Gestalt psychology. The system of psychology developed, primarily in Germany, by a group, the **Gestalt school**, who conceive of physiological, biological, and psychological events as occurring not through the summation of separate elements (sensations or reflexes), but through the functioning of *Gestalten* as units or in interrelation.

age (āj), *n.* [ME., fr. OF. *aage*, *eage* (F. *âge*), fr. (assumed) VL. *aetaticum*, fr. L. *aetas*, fr. *aevitas*, fr. *aevum* lifetime, age. See AYE ever; cf. PRIMEVAL.]
15. *Psychol.* A measure of a type of development of an individual expressed as equivalent to (a number of) years of the same type of development of an average child; as, achievement, or educational, *age* (a measure of achievement, esp. in intellectual endeavor); mental, anatomical, physiological, or developmental *age*.

psy'cho·a·nal'y·sis (sī'kō·ȧ·năl'ĭ·sĭs; psī'-; 205), *n.* [NL., fr. *psycho-* + *analysis*.] **a** The method developed by Sigmund Freud for analyzing the content and mechanisms of a person's mental life, for purposes of psychotherapy. By dream analysis and similar devices it aids the patient to discover and relive his unconscious memories and desires and to adjust his mental conflicts. **b** The body of facts discovered by this method. **c** The system of theories based on these facts, and dealing esp. with the repression of desires into the unconscious and with the infantile sexuality as the source of conflicts and neuroses. **d** The interpretation of facts from other sources in the light of these theories. — **psy'cho·an'a·lyt'ic** (-ăn'ȧ·lĭt'ĭk), **psy'cho·an'a·lyt'i·cal** (-ĭ·kăl), *adj.* — **psy'cho·an'a·lyt'i·cal·ly**, *adv.*

de·men'ti·a prae'cox (prē'kŏks). [L. *praecox* early ripe, precocious.] A common form of insanity, developing usually in late adolescence or early adult life, and characterized by loss of interest in people and things, loss of effective participation in practical or social life, incoherence of thought and action, and blunting of emotion. In cases of the hebephrenic type it is characterized also by silly behavior, in cases of the paranoid type, by delusions, and in cases of the catatonic type by negativistic, stereotyped, cataleptic actions and attitudes, and by periods of excitement and of stupor.

Bacteriology

Strep'to·coc'cus (strĕp'tō·kŏk'ŭs), *n.* [NL., fr. *strepto-* + *coccus*.] *Bacteriol.* **1.** A genus of nonmotile, chiefly parasitic, Gram-positive bacteria of the family Coccaceae, which, dividing in only one plane, occur in pairs or chains, but not in packets, and which do not form zoogleal masses nor ferment inulin. They rarely have capsules. Several species are virulently pathogenic. *S. pyogenes*, the type species, causes various acute diseases in man and animals, affecting the sinuses, lungs, brain, and spinal cord, middle-car bones, joints, blood, etc. *S. scarlatinae* causes scarlet fever; *S. erysipelatos*, erysipelas; *S. puerperalis*, puerperal septicemia; *S. mastitidis*, mastitis of cows; and *S. equi*, strangles. *S. lactis* is usually the chief agent in souring milk; *S. kefir* is active in ripening Cheddar cheese and occurs in kefir; and *S. cremoris* is used as a starter in the manufacture of cheese.
2. [*not cap.*; *pl.* STREPTOCOCCI (strĕp'tō·kŏk'sī).] Any microorganism of this genus, or, broadly, any coccus occurring in chains.

A·moe'bo·bac'ter (ȧ·mē'bō·băk'tẽr), *n.* [NL., fr. *amoeba* + *-bacter*.] *Bacteriol.* **a** A genus of bacteria of the subfamily Chromatioideae, having spherical or elongated cells which divide in one plane but remain united by threads of protoplasm. The colonies are amoeboid and motile. The type species, *A. roseum*, occurs in water. **b** [*not cap.*] Also **a·moe'bo·bac'ter**. Any organism of this genus.

Gram's method (grămz). [After Hans C. J. *Gram* (b. 1853), Danish physician.] *Bacteriol.* A method for the differential staining of bacteria by which they are treated with Gram's solution (which see) after being stained with gentian violet, and are then treated with alcohol and washed in water, with the result that certain species (*Gram-positive*) retain the dye, while others (*Gram-negative*) are decolorized;

smear culture. *Bacteriol.* A culture inoculated with a smear; also, such an inoculation.

mi'crobe (mī'krōb), *n.* [F., fr. Gr. *mikros* small + *bios* life.] A very minute organism; a microorganism; a germ; — popularly applied to bacteria, esp. to the pathogenic forms. — **mi·cro'bi·al** (mī·krō'bĭ·ăl), *adj.* — **mi·cro'bi·an** (-ăn), *adj.* — **mi·cro'bic** (-krō'bĭk; -krŏb'ĭk), *adj.*

tubercle bacillus. *Bacteriol. & Med.* The microorganism *Mycobacterium* (syn. *Bacillus*) *tuberculosis*, which causes tuberculosis. It was discovered in 1882 by the German physician and bacteriologist Robert Koch.

tu·ber'cu·lin (-lĭn), *n.* Also **tu·ber'cu·line** (-lĭn; -lēn). *Immunol.* A sterile liquid containing the growth products of, or specific substances extracted from, the tubercle bacillus. The form first prepared (***old tuberculin***) by boiling, filtering, and concentrating, a bouillon culture of tubercle bacilli, was put forth as a cure for tuberculosis by Koch in 1890 (***Koch's lymph***). In various forms it is now used in the diagnosis and treatment of tuberculosis, esp. in children and cattle. The ***tuberculin test***, as commonly applied, consists in the injection of tuberculin under or into the skin; it has little or no effect in nontuberculous subjects, but causes inflammation at the site of the injection, often with a general rise in temperature, in tuberculous subjects.

Dentistry

oc·clu'sion (ŏ·klōō'zhŭn), *n.* [See OCCLUDE.] **1.** Act of occluding, or state of being occluded; closing or shutting.
Constriction and *occlusion* of the orifice. *Howell.*
2. Specif.: **a** The transient approximation of the edges of a natural opening, as of the eyelids. **b** *Chem.* Absorption, esp. of gases (see OCCLUDE, 3). **c** *Dent.* The bringing of the opposing surfaces of the teeth of the two jaws into contact; also, the relation between the surfaces when in contact. **d** *Med.* Imperforation. **e** *Phonet.* A complete closure of the breath passage, with consequent implosion of the breath, as in forming a stop.

oc·clude' (ŏ·klōōd'; 242), *v.*; -CLUD'ED (-klōōd'ĕd; -ĭd; 119); -CLUD'ING (-klōōd'ĭng). [L. *occludere*, *occlusum*, fr. *ob* (see OB-) + *claudere* to shut. See INCLUDE.] *Transitive:*
1. To shut up; to close or obstruct.
2. To shut in or out by or as by closing a passage; as, to *occlude* light; to *occlude* a knot in a tree trunk.
3. *Chem.* To take in and retain; to absorb; — said esp. with respect to the absorbing of gases by certain substances which do not thereby lose their characteristic properties; as, charcoal, iron, platinum, and palladium *occlude* large volumes of hydrogen.
4. *Dent.* To bring upper and lower teeth into occlusal relations.
——, *Intransitive*: *Dent.* To close with the cusps fitting together, as upper and lower teeth.

py'or·rhe'a, py'or·rhoe'a (pī'ŏ·rē'ȧ), *n.* [NL., fr. *pyo-* + *-rhea*.] *Med.* A discharge of pus; specif.: ‖**py'or·rhe'a al·ve'o·la'ris** (ăl·vē'ō·lā'rĭs; 79), purulent inflammation of the sockets of the teeth, leading usually to loosening of the teeth; Riggs' disease. — **py'or·rhe'al, -rhoe'al** (-ăl), **py'or·rhe'ic, -rhoe'ic** (-ĭk), *adj.*

per'i·o·don'to·cla'si·a (-dŏn'tō·klā'zhĭ·ȧ; -zhȧ; -zĭ·ȧ), *n.* [NL. See PERIODONTAL; -CLASIA.] *Dent.* A disease of the periodontal tissues characterized by their destructive degeneration, and the consequent loosening of the teeth; pyorrhea alveolaris.

o·don'to·lith (-lĭth), *n.* [*odonto-* + *-lith*.] *Dent.* Tartar of the teeth.

in'lay' (ĭn'lā'), *n.* **1.** Process or art of inlaying.
2. Material inlaid, or prepared for inlaying; also, the ornament or pattern formed by inlaying.
3. The part turned in at a seam in sewing.
4. *Dent.* A filling of metal or porcelain first made in the laboratory and then cemented into the cavity of a tooth.

ca'ri·es (kā'rĭ·ēz), *n.* [L., decay; akin to Gr. *kēr* death, Skr. *śṛṇāti* he breaks, crushes. Cf. CARRION.] *Med.* Decay of animal tissues; esp., ulceration of bone; a process in which bone disintegrates and is carried away piecemeal, as distinguished from *necrosis*, in which it dies in masses. Specif., *Dent.*, tooth decay, or the pathological process of localized destruction of tooth tissues by microorganisms.

Veterinary Science

tu·ber'cu·lo'sis (-lō'sĭs), *n.* [NL. See TUBERCLE; -OSIS.]
1. *Med. & Veter.* An infectious disease caused by the tubercle bacillus (*Mycobacterium tuberculosis*) and characterized by the production of tubercles (see TUBERCLE, 4). The commonest seat of human tuberculosis is the lungs, but other organs are often involved, as the lymph glands, intestines, serous membranes, larynx, bones, kidneys, suprarenal glands, skin, and generative organs. The disease may generalize (see MILIARY TUBERCULOSIS), affecting almost all the internal organs. Tuberculosis is common in domestic animals, affecting particularly cattle, swine, and chickens. Human, bovine, and avian types of tubercle bacilli are distinguished, the first affecting man, the second cattle, and the third domestic fowls. Both bovine and avian types affect swine. The bovine type of disease is transmissible, through milk, to human beings, esp. children.
2. *Plant Pathol.* Any one of several different bacterial diseases of plants in which enlargements or pockets are formed, as olive knot, a disease of the sugar beet, etc.

heave (hēv), *n.* **1.** An effort to heave or to raise something, as a weight, or oneself, or to move something heavy.
After many strains and *heaves*
He got up to his saddle eaves. *Hudibras.*
2. Act of hurling or throwing; a throw; cast.
3. An upward motion; a rising; esp., a rhythmical rising, as of the breast in difficult breathing, of the waves, etc.
There's matter in these sighs, these profound *heaves*. *Shak.*
4. *Geol.* The horizontal displacement by the faulting of a rock measured in a plane at right angles to the fault strike. See FAULT, *n.*, 6, *Illust.*
5. *pl.* in form, construed as *sing.* *Veter.* A disease, chiefly of horses, in which the elasticity of the lungs is lost, the air vesicles are permanently distended, and expiration is difficult, and which is accompanied with heaving of the flanks and a persistent cough; broken wind; emphysema.

spav'in (spăv'ĭn), *n.* [ME. *spaveyne*, fr. OF. *esparvain*, *esparvin* (F. *éparvin*), of obscure origin.] *Veter.* A disease of the hock of horses, marked by a small bony enlargement inside of the leg. It is due to a sprain or a violent effort.

itch (ĭch), *n.* [AS. *giccе*. See ITCH, *v.*] **1.** An itching, contagious eruption of the skin; specif., *Med. & Veter.*, one caused by an itch mite; scabies. See BARBER'S ITCH.

glan'ders (glăn'dẽrz), *n.* [OF. *glandres*, pl., glands. See GLAND.] *Veter.* A highly contagious and very destructive acute or chronic disease of horses, mules, etc., caused by (*Pfeifferella*, syn. a bacterium *Bacillus*, *mallei*) and marked by febrile symptoms, enlargement and hardening of the glands beneath and within the lower jaw, and ulceration of the mucous membranes, esp. of the nose, producing a sticky discharge. It may be transmitted to dogs, goats, sheep, and man, but bovines are immune. While the same in cause, it is more generalized than farcy (which see).

war'ble, *n.* [Origin obscure. Cf. WORMIL.] **1.** *Veter.* A small hard tumor produced on a horse by heat or pressure of the saddle. Cf. def. 2 **a**.
2. **a** A swelling caused by the maggot of a botfly or warble fly under the hide (esp. of the back) of cattle, deer, rabbits, etc. **b** The maggot of the warble fly; a wormil.

Webster's New International Dictionary, *Second Edition*

A Composite Page of Terms in Special Subjects

Medicine and Pathology

can′cer (kăn′sẽr), *n.* [L., crab, ulcer, a sign of the zodiac; akin to Gr. *karkinos*, Skr. *karkaṭa*, crab, and Skr. *karkara* hard, the crab being named from its hard shell. See HARD; cf. CANKER, CARCINOMA, CHANCRE.] **4.** *Med.* **a** A malignant growth of tissue, usually ulcerating, tending to spread by local invasion and also through the lymph and blood stream, associated with general ill health and progressive emaciation; — so called originally because of the veins and hardened tissue extending from it, compared by the ancients to the claws of a crab; specif., a carcinoma (which see); a sarcoma or, esp. formerly, any other malignant tumor growth. **b** The diseased condition characterized by such growths. **5.** An evil likened to a cancer (sense 4 **a**); a malignant evil that corrodes slowly and fatally.

di′a·be′tes (dī′ȧ·bē′tēz; *colloq.* -tĭs; 277), *n.* [NL., fr. Gr. *diabētēs*, fr. *diabainein* to pass through.] *Med.* A disease which is attended with a persistent, excessive discharge of urine. It is of two kinds: ‖**di′a·be′tes in·si′pi·dus** (dī′ȧ·bē′tēz ĭn·sĭp′ĭ·dŭs), a form marked by great augmentation in secretion of urine containing no abnormal constituent. ‖**di′a·be′tes mel·li′tus** (mĕ·lī′tŭs), commonly called simply *diabetes*, or, sometimes, ***sugar diabetes***, a grave form in which the urine contains sugar. It is attended by excessive thirst and hunger and progressive emaciation. See INSULIN.

in′su·lin (ĭn′sū·lĭn), *n.* [L. *insula* island + *-in*.] **a** *Biochem.* The crystalline active principle of the islands (or bodies) of Langerhans in the pancreas, which promotes the utilization of sugar in the organism. **b** [*cap.*] A trademark applied to a solution of this, made from the pancreas of sheep or oxen, and used hypodermically as a specific for diabetes. Insulin was discovered in Toronto in 1923 by Dr. F. G. Banting (b. 1891) and Dr. J. J. R. MacLeod (b. 1876). Also [*sometimes not cap.*], the solution bearing this trade-mark.

di′a·ther′my (dī′ȧ·thûr′mĭ), *n.* Also **di′a·ther′mi·a** (-thûr′mĭ·ȧ). [NL. *diathermia*, fr. *dia-* + Gr. *thermē* heat.] Literally, a heating through; specif., *Med.*, the local elevation of temperature in tissues beneath the surface of the skin, produced for therapeutic purposes by means of high-frequency electrical oscillations; also, loosely, the current so used, or the apparatus for applying it. — **di′a·ther′mize** (-thûr′mīz), *v. t.*

infantile paralysis. *Med.* A specific acute disease, occurring chiefly in infants and children, characterized by febrile symptoms, motor paralysis, and muscular atrophy, often producing permanent deformities. The paralysis is the result of inflammation and subsequent degeneration of the nerve cells in the anterior horns of the gray substance of the spinal cord. Called also *acute anterior poliomyelitis.*

tu′mor, tu′mour (tū′mẽr), *n.* [OF. or L.; OF. *tumour* (F. *tumeur*), fr. L. *tumor*. See TOMB.] **4.** Any morbid swelling; specif., *Med.*, an abnormal mass of tissue, not inflammatory and independent in character, arising without obvious cause from cells of pre-existent tissue, possessing no physiological function, and characteristically unrestrained in growth and structure; — often called a *true tumor;* a neoplasm. Cf. -OMA.

Plant Physiology

pho′to·syn′the·sis (fō′tō·sĭn′thē·sĭs), *n.* [NL., fr. *photo-* + *synthesis*.] *Chem. & Physiol.* Synthesis of chemical compounds effected with the aid of radiant energy, esp. light; specif., *Plant Physiol.*, the formation of carbohydrates, in constructive metabolism, from water and the carbon dioxide of the air in the chlorophyll-containing tissues of plants exposed to light, formerly called *assimilation* (see ASSIMILATION, 2). The details of the process are still imperfectly known. A commonly accepted theory is that carbon dioxide is reduced to carbon monoxide, which, uniting with the hydrogen of the water in the cell, produces formaldehyde, the latter forming various sugars through polymerization. The chloroplasts perform photosynthesis only in light and within a certain range of temperature, varying according to climate. Photosynthesis is the only way in which a plant is able to form carbohydrates. Aside from chemosynthetic bacteria, all plants without chlorophyll, as the fungi, are heterotrophic (parasitic or saprophytic). See CHLOROPHYLL, CHLOROPLAST, CARBOHYDRATE. Cf. CHEMOSYNTHESIS, PHOTOCATALYSIS. — **pho′to·syn·thet′ic** (-sĭn·thĕt′ĭk), *adj.* — **pho′to·syn·thet′i·cal·ly** (-ĭ·kăl·ĭ), *adv.*—**pho′to·syn′the·size** (-sĭn′thē·sīz), *v.t. & i.*

chlo′ro·phyll, chlo′ro·phyl (klō′rō·fĭl; 181), *n.* [F. *chlorophylle*, fr. Gr. *chlōros* light-green + *phyllon* leaf. See YELLOW; BLADE.] The green coloring matter of plants. It occurs in the chloroplasts of cells exposed to light, and is not developed in the absence of iron. It may be extracted by acetone, ether, alcohol, or various oils, and then is a mixture of green pigments (chlorophyll proper and isochlorophyll) and yellow pigments (carotene and xanthophyll). Chlorophyll is essential in the formation of carbohydrates by photosynthesis; hence all plants without it, as the fungi, are parasites or saprophytes, excepting certain autotrophic bacteria (as *Nitrobacter*). See CHLOROPLAST, PHOTOSYNTHESIS.

sap (săp), *n.* [AS. *sæp*; akin to OHG. *saf*, G. *saft*, ON. *safi*, L. *sapa* must, and perh. to L. *sapor* taste. See SAVOR.] **1.** The juices or fluid contents of a plant, esp. the watery solution which circulates through the vascular tissue in woody plants. The ascending current consists of water, absorbed by imbibition and osmosis, in which are dissolved various salts obtained from the earth. This ***crude sap*** passes through the xylem portion of the vascular bundles to the chlorophyll-containing tissues (the leaves in most plants). Here it is subjected to photosynthesis (see PHOTOSYNTHESIS); the surplus water is transpired, and the newly formed carbohydrates and proteins are translocated through the phloem or sieve tissue to the parts of the plant which may require them, the descending current being often called ***elaborated sap***. In some plants, as the sugar cane, sugar maple, various palms, etc., sap contains much sugar. Popularly, *sap* is sometimes applied to latex or to any fluid secretion. See TRANSPIRATION, 3; cf. CELL SAP **a**.

chlo′ro·plast (klō′rō·plăst), *n.* [*chloro-*, 1 + *-plast*.] *Biol.* A plastid containing chlorophyll, developed only in cells exposed to the light. Chloroplasts are the seat of photosynthesis and starch formation. They are commonly minute flattened granules, and consist of a colorless ground substance saturated with chlorophyll pigments (see CHLOROPHYLL). — **chlo′ro·plas′tic** (klō′rō·plăs′tĭk; 181), *adj.*

Anthropology, Archaeology, Egyptology

Tell′ el–A·mar′na (tĕl′ ĕl·ȧ·mär′nȧ). [Ar. *Tall al-'Amārinah* the hill of the *'Amārinah* or the *banu-'Imrān* Bedouins.] A station on the Nile, midway between Thebes and Memphis, forming the site of the capital of Amenhotep IV, whose archive chamber was discovered there in 1887. A collection of tablets (called the ***Tell el-Amarna***, or ***Amarna, tablets***) was found here, forming the Asiatic correspondence (***Tell el-Amarna letters***) of Amenhotep IV and his father, Amenhotep III, written in cuneiform characters. It is an important source of our knowledge of Asia during the ***Amarna Age*** (about 1375–1360 B.C.). Cf. ARZAVA, 2; MITANNI.

ankh (ăngk), *n.* [Egypt. *ānkh* life, prosperity.] *Egypt. Archaeol.* A tau cross with a loop at the top, used as an attribute or sacred emblem, symbolizing life; — called also *crux ansata*.

canopic jar. *Egypt. Archaeol.* One of the four jars, bearing on their covers representations of the four genii of Amenti, in which the Egyptians preserved the viscera of the deceased, usually for burial with the mummy.

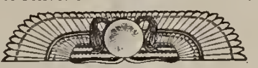
Canopic Jar.

Ro·set′ta stone (rō·zĕt′ȧ). A piece of black basalt found in 1799 near the Rosetta mouth of the Nile, bearing a bilingual inscription (in hieroglyphics, demotic characters, and Greek), and famous as having given M. Champollion the first clew toward deciphering the Egyptian hieroglyphics.

Rim′mon (rĭm′ŏn), *n.* [Heb. *Rimmōn*, fr. Assyr. *Rammān*, the roarer, god of thunder.] *Bib.* An Aramean deity worshiped at Damascus, identified with Assyrian Ramman, god of thunder and storms. Elisha's permission to Naaman to bow with his master in the house of Rimmon is often alluded to (2 *Kings* v. 18); — hence, ***to bow down in the house of Rimmon***, to conform to some immoral or reprehensible custom or requirement.

tree of life.
3. *Oriental Archaeol.* The sacred life-preserving tree represented in the art of the ancient Near East, whence it probably was taken over by the Aegean countries. The cylinder seal was a favorite medium for the depiction of this motif, often in an extremely conventionalized manner. The seven-branched candlestick is believed to have resulted from this process of conventionalization of the tree of life.

sun disk. *Archaeol.* A disk with conventionalized wings, used in the symbolism of the ancient Near East as emblem of the sun god. In Egypt it was the symbol of Ra and often bore the uraeus; in southwestern Asia it became identified with the God Ashur and later with Ahura-Mazda.



Sun Disk.

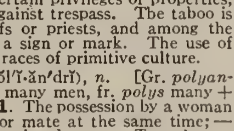
voo′doo·ism (-ĭz′m), *n.* [From VOODOO.] **1.** [*often cap.*] A negro religion, originating in Africa as a form of ophiolatry, now found chiefly among the negroes of Haiti, and, to some extent, of other West Indian islands and the United States; also, belief in or practice of this religion. In practice, voodooism consists largely of sorcery. It formerly, in some rites, included human sacrifice and cannibalism. Cf. OBEAH.

ta·boo′, ta·bu′ (tȧ·bōō′; *the Polynesian* tabu, tapu (*see ety.*) *is pron'd* tä′bōō, tä′pōō), *adj.* [Tongan *tabu;* akin to Maori, Samoan, Tahitian, etc., *tapu* sacred, under restriction, prohibited.] **1.** Set apart or sacred by religious custom, or forbidden to certain persons or uses; such as may be violated only at the cost of release of evil-working magical force; of persons, subject to the operation of a taboo; ostracized.

ta·boo′, ta·bu′, *n.*; *pl.* TABOOS, TABUS (-bōōz′). [From TABOO, *adj.*] **1.** A sacred interdiction laid upon the use of certain things or words or the performance of certain actions; the action of imposing or state of being subject to such interdiction. Taboos may be designed to prevent pollution, as in the prohibition to use certain foods, touch a corpse, etc., or to secure certain privileges or properties, as when a field is tabooed against trespass. The taboo is commonly imposed by chiefs or priests, and among the Polynesians is indicated by a sign or mark. The use of taboos is found among most races of primitive culture.

pol′y·an′dry (pŏl′ĭ·ăn′drĭ; pŏl′ĭ·ăn′drĭ), *n.* [Gr. *polyandria*, fr. *polyandros* having many men, fr. *polys* many + *anēr*, *andros*, man, male.] **1.** The possession by a woman of more than one husband or mate at the same time; — contrasted with *monandry* and *polygyny*. Two characteristic types of primitive polyandry are *Nair* and *Tibetan* (see these words) *polyandry*.

fe′tish, fe′tich (fē′tĭsh; fĕt′ĭsh; 277), *n.* [F. *fétiche*, fr. Pg. *feitiço*, adj., artificial, n., sorcery, charm, fr. L. *facticius* made by art, artificial, factitious. See FACTITIOUS.] **1.** A material object, whether natural, as the tooth or claw of an animal, or artificial, as a carving in wood or bone, supposed to possess magical powers or to be endowed with energies or qualities capable of bringing to successful issue the designs of the owner, preserving him from injury, curing disease, etc. The fetish is regarded as the abode, sometimes temporary, of a supernatural spirit or power, and gains its potency from the indwelling of that spirit. The term was originally applied to the idols and talismans of the West Africans, but is now applied to similar objects the world over. Cf. MEDICINE.



Whale Fetish of Wood, Western Eskimo.

sib (sĭb), *n.* [AS. *sibb*, *gesib*. See GOSSIP.]
5. *Anthropol.* A group consisting of all persons unilaterally descended from a real or supposed ancestor.

ma′na (mä′nä), *n.* [Polynesian.] Extraphysical power immanent in and emanating from nature viewed as the embodiment of all elemental forces which, taken together, produce and maintain the order of the universe. Mana is manifested physically in various ways, as by authority, prestige, prophetic vision, magical powers, etc. *Polynesia & Australasia.*

Meteorology and Weather

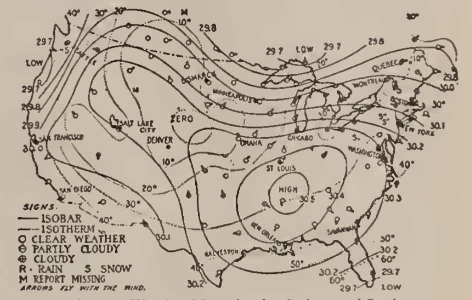
cloud (kloud), *n.* [ME. *cloud*, *clud*, rock, hill, cloud, fr. AS. *clūd* rock, hillock; akin to E. *clod;* basic idea: mass, cumulus. See CLOD.] **1.** A visible assemblage of particles of water or ice, formed by the condensation of vapor in the air; a fog or mist or haze suspended, generally at a considerable height, in the air; also, the material of which these masses are composed. See CIRRUS, CUMULUS, NIMBUS, STRATUS.

cu′mu·lus (kū′mū·lŭs), *n.*; *pl.* -LI (-lī). [L., a heap.] **1.** A heap; an accumulation; the acme of an accumulation. **2.** A massy cloud form usually occurring in the middle cloud region (at elevations between 5,000 and 15,000 feet), having a flat base and rounded outlines often piled up like a mountain. It commonly appears in the early afternoon on warm days, and may afford rain or thunder gusts.

stra′to·sphere (strā′tō·sfēr; străt′ō-), *n.* [F. *stratosphère*. See STRATUM; SPHERE.] *Meteorol.* The upper portion of the atmosphere, above 11 kilometers, more or less (depending on latitude, season, and weather), in which temperature changes but little with altitude and clouds of water never form, and in which there is practically no convection; — originally, and still often, called the *isothermal region*.

fog (fŏg; 185), *n.* [Prob. fr. Dan. *fog* spray, shower, driving snow; akin to ON. *fok* spray, drifting snow, Nor. dial. *fuka* sea fog, *fuke* misty rain, ON. *fjūka* to be driven by the wind, to drift, MHG. *vochen* to blow, Lett. *pūga* squall.] **1.** Vapor condensed to fine particles of water in the lower part of the atmosphere and disturbing its transparency. International symbol, ≡. It differs from cloud only in being near the ground. See CLOUD. Fog not exceeding the height of a man is called *ground fog*, and its international symbol is ≡. A *wet fog* is one which wets exposed surfaces. International symbol, ≡.

i′so·bar (ī′sō·bär), *n.* [*iso-* + Gr. *baros* weight.] **1.** *Meteorol.* A line connecting or marking places upon the surface of the earth where the height of the barometer reduced to sea level is the same either at a given time or for a certain period.



United States Weather Map, showing Isobars and Isotherms.

trop′o·sphere (-sfēr), *n.* [F. *troposphère*, fr. Gr. *tropos* a turn, but in sense as if fr. *tropē* a turn or change + F. *sphère* sphere. See TROPE; SPHERE.] *Meteorol.* All that portion of the atmosphere below the stratosphere. It is that portion in which temperature generally rapidly decreases with altitude, clouds form, and convection is active.

trop′o·pause (trŏp′ō·pôz), *n.* [Gr. *tropos* (as in *troposphere*) + *pausis* a ceasing. See PAUSE, *n.*] *Meteorol.* The top of the troposphere.

Buys′ Bal′lot's′ law (bĭs′ băl′ŏts′). [After C. H. D. *Buys Ballot* (1817–90), Dutch meteorologist.] *Meteorol.* The law that when the observer has his back to the wind, the lower barometric pressure is to his left in the Northern Hemisphere, and to his right in the Southern Hemisphere. This is due to earth rotation.

cy′clo·stroph′ic (sī′klō·strŏf′ĭk; sĭk′lō-), *adj.* [*cyclo-* + Gr. *strophikos*, fr. *strephein* to twist, turn.] *Meteorol.* Of cyclic compulsion; — used of that component of the deflective force of a wind which is due to the curvature of its path.

hur′ri·cane (hûr′ĭ·kān; -kăn; -kĕn; 245), *n.* [Sp. *huracán*, fr. Taino *huracan*, *hurricán*, hurricane, evil spirit. See HURAKAN.] **1.** A cyclone of large extent usually accompanied by rain, thunder, and lightning, esp. prevalent in the tropics, nearly 70 per cent of them occurring in the West Indies and the China Sea, from August to October. See CYCLONE. It is the highest term in scales of wind force, but does not imply so great a velocity as tornadic winds, rarely exceeding 100 miles an hour. See BEAUFORT'S SCALE, WIND SCALE.

si·roc′co (sĭ·rŏk′ō), *n.*; *pl.* -COS (-ōz). [It. *sirocco*, *scirocco*, fr. Ar. *sharq* the rising of the sun, the east.] **1. a** A hot, oppressive, dust-laden wind from the Libyan deserts, experienced on the northern Mediterranean coast, chiefly in Italy, Malta, and Sicily. **b** A warm, moist, oppressive, southeast wind, in the same regions. **2.** In general, any hot or warm wind of cyclonic origin, blowing from arid or heated regions, including the harmattan of the west coast of Africa, the hot winds of Kansas and Texas, and the khamsin of Egypt.

har′mat·tan′ (här′mȧ·tăn′), *n.* [Sp. *harmatán*, fr. Tshi *haramata*, fr. Ar. *harām* forbidden or evil thing. Cf. HAREM.] A dry, dust-laden wind blowing from the interior on the Atlantic coast of Africa in certain seasons.

bar′o·me·trog′ra·phy (-mē·trŏg′rȧ·fĭ), *n.* *Meteorol.* The science which treats of the use of the barometer and the making of barometric observations.

orographic rain. The rain produced when a mountain deflects moisture-laden wind upward.

weath′er (wĕth′ẽr), *n.* [ME. *weder*, fr. AS. *weder;* akin to OS. *wedar*, OFris. *weder*, D. *weder*, *weêr*, G. *wetter*, OHG. *wetar*, ON. *vethr*, Dan. *veir*, Sw. *väder* wind, air, weather, and also to OSlav. *vedro* fair weather, *vetrŭ* air, wind, Lith. *vetra* storm, and E. WIND air. Cf. WITHER.] **1.** State of the air or atmosphere with respect to heat or cold, wetness or dryness, calm or storm, clearness or cloudiness, or any other meteorological phenomena; meteorological condition of the atmosphere; as, warm, cold, wet, dry *weather*. Cf. CLIMATE, 3.

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Education

public school. **a** In Great Britain, any of various schools maintained by the community, wholly or partly under public control, or maintained largely by endowment and not carried on for profit; specif., and commonly, any of various select and usually expensive endowed schools which give a liberal education or prepare pupils for the universities. Eton, Harrow, Rugby, and Winchester are of this class. **b** In the United States, Scotland, and British colonies and dominions, an elementary or secondary school, now usually free, maintained by the local governmental authority.

platoon school. A departmentalized school in which the pupils of each grade are organized into divisions (platoons) which take turns in using the classrooms, shops, auditorium, gymnasium, and other physical resources of the school plant; — frequently called *Gary school*, because of its origin in Gary, Indiana.

proj′ect (prŏj′ĕkt; -ĭkt; 277), *n.* [L. *projectum*, neut. past part.; cf. F. *projet*, fr. the v. See PROJECT, *v.*; cf. PROJET.] **5.** *Educ.* A task or problem, usually calling for constructive thought or action, or both, by the student, and involving the learning of a phase of school work; as, the *project* of illustrating *Hiawatha* from magazine material; — often used attributively; as, *project* method.

home economics. The science and art dealing with homemaking and the relation of the home to the community; theory and practice concerning the selection and preparation of food and clothing, conditions of living, the use of income, the care and training of children, etc.; also, the study or teaching of home economics, or an academic department concerned with this.

council school. In England and Wales, a nondenominational school provided and maintained by the council of a county or county borough, called the ***local education authority***, assisted by a Government grant in aid proportionate to the number of pupils; — called also *provided school*. Prior to 1902, the school districting unit had been the parish or municipal borough, each of which had its board of education. These boards established and maintained, out of the local rates supplemented by Government grants, nondenominational schools, which were called ***board schools***. By the Education Act of 1902 the county or county borough became the districting unit, the boards of education were abolished, and the board schools were absorbed into the council, or provided, schools. See VOLUNTARY SCHOOL.

tri′pos (trī′pŏs), *n.*; *pl.* TRIPOSES (-ĕz; -ĭz; 119). [L. *tripus* or Gr. *tripous*. See TRIPOD.] **1.** A tripod. *Obs.* **2.** *Cambridge Univ., Eng.* **a** The examination, instituted in the first half of the 18th century, for honors in mathematical science (cf. WRANGLER, 3; OPTIME). **b** Since 1824, the final honors examination in classics, to which, until 1850, only those were admitted who had previously obtained honors in mathematics. **c** More recently, any of the honor examinations.

☞ The word *tripos* was first applied to the three-legged stool on which sat a bachelor of arts appointed to dispute humorously with candidates for degrees; then to the man himself; then to a set of verses (***tripos verses***) composed by him and published till 1894 at commencement; then to the list of successful candidates for honors printed on the back of the paper containing the verses; then to the examinations.

Library Terms

cat′a·logue (kăt′ȧ·lŏg; 185), *n.* Also **cat′a·log.** [F. *catalogue*, fr. LL. *catalogus*, fr. Gr. *katalogos* a counting up, list, fr. *katalegein* to count up, fr. *kata* down, completely + *legein* to pick out, gather, count, say.] **1.** A list; register; complete enumeration of items. Also figurative. *Archaic.*

Ay, in the *catalogue* ye go for men. *Shak.*

2. Specif.: **a** A list or enumeration of names, titles, or articles arranged methodically, often in alphabetical order and usually with descriptive details, number, or price accompanying each item; as, a *catalogue* of books, of stars, or of merchandise. **b** A book or pamphlet containing such a list, together with other information; as, a university, library, or museum *catalogue*. Cf. CARD CATALOGUE.

im′print (ĭm′prĭnt), *n.* [MF. *empreinte* impress, stamp. See IMPRINT, *v. t.*] **1.** Whatever is imprinted; an impress. **2.** The place of publication, publisher's name, and date, or such of these items as are given, now usually printed at the foot of a title page; or the name of the printer, etc., on any printed sheet. In library cataloguing, the copyright date is considered part of the imprint.

dictionary catalogue. A catalogue of books having the different kinds of entries arranged in a single alphabet.

sub′ject cat′a·logue (sŭb′jĕkt; -jĭkt). *Libraries.* A catalogue in which books, etc., are listed only under the subjects treated, arranged alphabetically or by classes.

li′brar′y (lī′brĕr′ĭ *or, esp. Brit.*, lī′brȧ·rĭ), *n.*; *pl.* -IES (-ĭz). [ME. *librairie*, fr. OF. *librairie* library (F., bookseller's shop, book trade), fr. *libraire* copyist (F., bookseller), fr. L. *librarius*, fr. *liber* book. See LIBEL.] **1.** An apartment, a series of apartments, or a building, devoted to a collection of books, manuscripts, etc., kept for use but not for sale; as, a college *library*; also, an institution for the custody or administration of such a collection; as, a public *library*; the *Library* of Congress. **2.** A collection of books, etc., kept for study or reading and not as merchandise; as, a private *library*. **3** A commercial establishment for the renting of books, esp. on the plan of a circulating library, or for providing reading rooms and books to patrons. **4** A series of books of some similarity issued by the same publisher.

library binding Any bookbinding suitable for use by a public library, esp. one made of a strong durable cloth.

library edition. In the book trade, a set of books, usually of all the works of one author, uniform in size and format.

ti′tle (tī′t'l), *n.* [OF. *title* (F. *titre*), fr. L. *titulus* an inscription, label, title, sign, token. Cf. TILDE, TITRATE, TITTLE, TITTLAR.] **13** *Bookbinding* In various uses: **a** A title page. **b** The first book section, containing the title page. **c** = TITLE SPACE. **d** A gold-stamped leather label for a book back. **e** A specially printed title page for insertion in a de luxe book in place of, or preceding, a text title **16** *Library Cataloguing.* A literary work or book as distinguished from a particular copy; as, fifty *titles* of fiction and ten copies of each.

Australasian Terms

bush (bo͝osh), *n.* **2.** **b** A stretch of uncleared or uncultivated country, esp. of woodland or land covered with shrubby vegetation; as, to live or settle in the *bush*. Hence, the country or rural districts as opposed to town or city; the "sticks." Also, specif.: (1) *New Zealand.* (*a*) The forest of the North Island or (*b*) the undergrowth of the South Island. (2) *Australia.* The vast area or areas of arid scrub-covered country distinctive of certain interior districts.

squat′ter (skwŏt′ẽr), *n.* **3.** A person who occupied crownland for sheep raising under a lease or a license (a sense arising by extension of the orig. sense of a settler without title); later, loosely or improperly, one holding a sheep run as freehold. Hence, the owner or occupant of a sheep run or station; a sheep farmer on a rather large scale, or one of good family and education, as distinguished from a *selector*. *Squatter* is giving way to the newer terms *pastoralist* and *grazier*. *Australia.*

bar′rack (băr′ăk), *v. i.* [Possibly fr. native Australian *borak* derision.] *Chiefly Austral.* To give partisan support, as by cheering one side or jeering the other. — *v. t.* To decry by popular clamor; to jeer. — **bar′rack·er** (-ẽr), *n.*

fos′sick (fŏs′ĭk), *v.*; -SICKED (-ĭkt); -SICK·ING. [Dial. E. *fossick*, *fossuck*, a troublesome person, *fussick* to potter over one's work, *fussock* to bustle about; of uncert. origin. Cf. FUSS.] *Intransitive*: **1.** *Mining.* To search for gold by picking at stone or earth or among roots in isolated spots, picking over abandoned workings, etc.; hence, to steal gold or auriferous matter from another's claim. *Australia.*

swag (swăg), *n.* **1.** Orig., a bulging bag; now: **a** *Australasia.* A tramping bushman's luggage, rolled up in a long bundle and carried on the back or over the shoulder; — called also a *bluey* or a *drum*.

I've been a boundary rider; I've sheared sheep; and humped my *swag*. *Conrad.*

bil′la·bong′ (bĭl′ȧ·bŏng′), *n.* [Native name.] *Australia.* **a** A blind channel leading out from a river; — called also *anabranch*. **b** Any backwater, esp. one caused by overflow from a river, etc., that forms a stagnant pool.

war′ra·gal (wŏr′ȧ·găl), **war′ri·gal** (-ĭ·găl), *n.* [Native name.] *Australia.* **a** The dingo. **b** A wild aboriginal Australian; a myall. **c** A wild horse.

ko′ri·ma′ko (kō′rē·mä′kō; *colloq.* kŏr′ĭ-), *n.* [Maori.] The New Zealand bellbird *Anthornis melanura.*

nga′i·o (′ngä′ē·ō), *n.* [Maori.] A small tree (*Myoporum laetum*) of the New Zealand coast, with edible fruit and light, tough wood.

ha′e·re·ma′i (hä′ā·rā·mä′ē), *interj.* Also **ha′e·re ma′i.** Literally, come hither; hence, welcome; — a Maori salutation. *Colloq., New Zealand.*

ka′i (kä′ē; *colloq.* kī), *n.* [Maori.] Food. — **ka′i**, *v. t. & i.* *N. Z. & Polynesia.*

ka′ik (kä′ēk), **ka′i·ka** (kä′ē·kä), *n.* [Maori (southern dial.) *kaika.*] A Maori village or community. *New Zealand.*

Foreign Words and Phrases

‖**me′ne, me′ne, te′kel, u·phar′sin** (mē′nē, mē′nē, tĕk′ĕl, ū·fär′sĭn). [Aram. *mĕnē mĕnē tĕqēl ŭpharsīn* he has counted, counted, weighed, and they divide.] *Bib.* The writing which appeared on the wall, at the time of Belshazzar's feast, interpreted by Daniel to foretell the destruction of Belshazzar and his kingdom. *Daniel* v. 25. See DANIEL, *n.*, 2.

‖**dol′ce far nien′te** (fär nyĕn′tā). [It.] It is pleasant to do nothing; delightful idleness.

‖**pou sto** (po͞o stō; pou stō). [Gr. *pou stō* where I may stand; — from the reputed saying of Archimedes, "Give me where I may stand and I will move the whole world with my steelyard."] A place to stand upon; a locus standi; hence, a foundation or basis for operations.

‖**tu quo′que** (tū kwō′kwē). [L.] Thou also; — a retort charging an adversary with being or doing the same as oneself.

‖**me·men′to mo′ri** (mō′rī; 181). [L.] Literally, remember to die, i. e., that you must die; hence, a warning to be prepared for death; an object, as a death's-head or a personal ornament, usually emblematic, used as a reminder of death.

‖**de ri′gueur′** (dē rē′gûr′). [F.] According to strict etiquette; obligatory for good form.

‖**in pet′to** (ĭn pĕt′tō). [It.] In the breast; secretly; — applied to cardinals appointed by the Pope but not named in consistory.

‖**J′y suis′, j′y reste′** (zhē swē′, zhē rĕst′). [F.] I am here, here I remain; — attributed to MacMahon in 1855 when advised to abandon the Malakoff.

‖**no′blesse′ o′blige′** (nô′blĕs′ ô′blēzh′). [F.] Nobility obligates; — used to denote the obligation of honorable and generous behavior associated with high rank or birth.

‖**je ne sais quoi′** (zhē n′ sā kwȧ′). [F.] I know not what; an inexpressible something.

‖**si jeu′nesse′ sa′vait′, si vie′·illesse′ pou′vait′!** (sē zhû′nĕs′ sȧ′vĕ′, sē vyĕ′yĕs′ po͞o′vĕ′). [F.] *If youth knew, if age were able!*

‖**ex pe′de Her′cu·lem.** [L.] From the foot (we may judge of) Hercules: from a part we may judge of the whole.

‖**das E′wig-Weib′li·che zieht′ uns hin·an′** (däs ā′vĭk-vīp′lĭ·kĕ tsēt′ o͝ons hĭn·än′). [G.] The eternal feminine draws us upward. *Goethe* (*Faust*, at end).

‖**ab′sit o′men.** [L.] May there be no (ill) omen, or harm (from a word just used or from an action).

‖**a·mi′cus us′que ad a′ras.** [L.] A friend as far as to the altars, i. e., except in what is contrary to one's religion; — a response attributed to Pericles when asked to swear falsely.

‖**quis cus·to′di·et ip′sos cus·to′des?** [L.] Who shall keep the keepers themselves? *Juvenal* (VI. 347).

‖**au′re·a me′di·o′cri·tas** (ô′rē·ȧ mē′dĭ·ŏk′rĭ·tăs). [L.] The golden mean; — adapted from Horace (*Odes*, II. x. 5).

‖**au′tres temps′, au′tres moeurs′** (ō′tr′ täN′, ō′tr′ mûrs′; *s sounded in moeurs*). [F.] Other times, other customs; other days, other ways.

‖**qui s′ex′cuse′ s′ac′cuse′** (kē sĕks′küz′ sȧ′küz′). [F.] Who excuses himself accuses himself.

‖**tou′jours′ per′drix′** (to͞o′zho͞or′ pĕr′drē′). [F.] Literally, always partridge; too much of a good thing.

‖**tam Mar′te quam Mi·ner′va.** [L.] As much by Mars (war) as by Minerva (wisdom).

Indian Terms

Tu·pi′ (to͞o·pē′), *n.* **a** Any Tupian Indian. **b** Strictly, any Indian of the group of Tupian tribes forming the northern division of that stock and dwelling in the valleys of the Amazon, the Tapajós, and the Xingú. See TUPIAN. Cf. GUARANI. **c** The language of the Tupis; esp., the northern dialect, *Ñeêngatu* or *lingua geral*, as distinguished from *Guarani* or *Abañeẽme*, the southern dialect. Both have developed under missionary influence from *Abañeẽnga*, or primitive Tupi, and are mutually intelligible. The northern dialect was adopted by the Jesuits in Brazil as the language of evangelization, and by the Portuguese colonists for communication with the Indians. It still serves as a lingua franca in the valley of the Amazon. See GUARANI, *n.*, **b**.

pic′to·graph (-gràf; 83), *n.* [See PICTURE; -GRAPH.] **2.** *Archaeol.* A scratched or pecked drawing, often painted, upon the walls of caves, shelters, cliffs, etc.

Pictographs of the Ojibway Indians.

Ma·hi′can (mȧ·hē′kăn), *n.* Any of the Algonquian Indians formerly between the Hudson River and Narragansett Bay; specif.: **a** One of the ***Mohican***, a confederacy of small tribes, formerly living on both sides of the upper Hudson. Scattered by the Mohawk, some took refuge with western tribes and lost their identity, others joined the Scaticook and Stockbridge. **b** One of the ***Mohegan***, a tribe formerly living on the Thames River in Connecticut. Allies of the English, they were, after King Philip's War, the most powerful tribe in New England. A few survivors, of mixed blood, reside in their former territory. Others joined the Brotherton and Scaticook.

Natch′ez (năch′ĕz; -ĭz), *n. sing. & pl.* An Indian of a Muskhogean tribe formerly living on the lower Mississippi River near the present city of Natchez. Conquered by the French in 1730, they scattered among the Chickasaw, Choctaw, and Creek. — **Natch′ez·an** (-ĕz·ăn; -ĭz·ăn), *adj.*

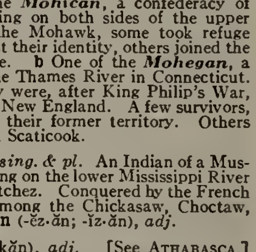
Ath′a·pas′can (ăth′ȧ·păs′kăn), *adj.* [See ATHABASCA.] Pertaining to or designating an extensive linguistic family of North American Indians divided into three geographic groups: the *northern*, extending from Hudson Bay throughout northwestern Canada and the interior of Alaska; the *Pacific*, occupying local areas along the Oregon and California coasts; and the *southern*, in Arizona, New Mexico, Texas, and Chihuahua, where it includes the Navahos and Apaches. — *n.* An Athapascan Indian.

☞ This spelling is generally used in the designation of the linguistic family, and *Athabascan* in the name of the tribe.

Dogs

hound (hound), *n.* [ME. *hound*, *hund*, dog, fr. AS. *hund*; akin to OS. & OFris. *hund*, D. *hond*, G. *hund*, OHG. *hunt*, ON. *hundr*, Goth. *hunds*, Lith. *šuo*, Ir. & Gael. *cu*, L. *canis*, Gr. *kyōn*, *kynos*, Skr. *śvan*. Cf. CANARY, CANINE, CYNIC, KENNEL, QUINSY.] **1.** Orig., a dog of any breed; in modern usage, specif., a dog of any of certain breeds used in the chase. The typical hounds have large drooping ears and a deep voice of characteristic tone, and follow their prey by scent. *Hound* usually (esp. in England) designates the foxhound. Other breeds are the harrier, bloodhound, beagle, basset, dachshund, otterhound, etc. See also BOARHOUND, STAGHOUND. Also, any of various other breeds of hunting dogs which follow their prey chiefly or entirely by sight, as the greyhound, Scotch deerhound, wolfhound.

Russian wolfhound. A gigantic dog of a breed originating in Russia and long bred and trained for hunting. Its extreme speed and the tenacious grip of its powerful jaws make it a deadly hunter of wolves. The long, slightly domed head, arched neck, deep chest, roachback, straight forelegs, and muscular, long hindquarters make it one of the most graceful of dogs. The coat, which may be flat or curly, is long and silky, with feathering on legs, tail, and chest. It is usually white, with lemon, tan, brindle, gray, or black markings. The height is from 26 to 31 inches, and the weight from 60 to 105 pounds.



Russian Wolfhound, or Borzoi. (1/33)

Do′ber·man pin′scher (dō′bẽr·măn pĭn′shẽr; *G.* dō′bẽr·män). A large smooth-coated terrier of a breed (recognized in 1900) originating in Apolda, and in Thuringia generally, about 1890, and named after the first breeder, one Dobermann. It has straight forelegs and broad hindquarters, is black, brown, or blue in color, with rust-red markings, and is from 21⅝ to 25⅝ inches in both length and height. A small variety, the ***miniature pinscher***, is 11 inches high.

ter′ri·er (tĕr′ĭ·ẽr), *n.* [F. *terrier*, *chien terrier*, fr. *terre* the earth, fr. L. *terra*; cf. F. *terrier* a burrow, fr. ML. *terrarium* a hillock (hence, a mound thrown up in making a burrow, a burrow). See TERRACE; cf. 3d TERRIER.] A dog, usually small, of any of several breeds, now kept chiefly as pets but originally used by hunters to dig for small furred game and engage the quarry underground or drive it out of its hole. The chief breeds are *Airedale*, *Bedlington*, *Border*, *Cairn*, *Dandie Dinmont*, *Irish*, *Kerry blue*, *Manchester*, *Scottish*, *Sealyham*, *Skye*, *Welsh*, and *West Highland white terriers*, and *bull terrier*, *fox terrier*, and *schnauzer*.

Cairn Terrier. (1/12)

Webster's New International Dictionary, *Second Edition*

A Composite Page of Terms in Special Subjects

Clothing, Textiles, Furs, Oriental Rugs, Antique Furniture, Ceramics, etc.

evening dress. **1.** = EVENING GOWN.
2. Conventionally correct dress for evening wear at formal or semiformal social affairs, or at the opera, theater, club, etc. Specif.: **a** For women, apparel including an evening gown, high-heeled slippers, and accessories such as jewels and, at formal halls, a headdress. **b** For men, clothes for strictly formal affairs, or ***full dress***, or those for less formal affairs, or the ***Tuxedo*** (called also, from its distinctive feature, ***dinner coat*** or ***jacket***). Full dress includes a swallow-tailed coat and trousers, commonly of black dull-surfaced cloth, a white waistcoat and bow tie, white stiff-bosomed shirt, and black dress shoes. The Tuxedo differs from full dress in its jacket, which is fashioned like a one-buttoned sack coat, and in its waistcoat and bow tie, which are conventionally black. See SWALLOW-TAILED COAT, MESS JACKET, SHELL JACKET.

san'dal (săn'dăl; -d'l), *n.* [L. *sandalium*, fr. Gr. *sandalion*, dim. of *sandalon*, of Oriental origin; cf. Per. *sandal.*] **1.** A kind of shoe consisting of a sole strapped to the foot; a protection for the foot, covering its lower surface only. Sandals are much worn among Orientals, and are a part of the official dress of Roman Catholic bishops and abbots.
2. A fancy slipper, sometimes containing openwork in the vamps and quarters.
3. A strap or latchet to hold on a slipper or low shoe by passing across the foot or around the ankle, — in use during the first half of the 19th century.
4. A rubber overshoe cut very low, either with an entire sole and a strip across the instep or with a sole for the fore part of the foot only and a strip back of the heel.

Sandals, showing two methods of fastening.

crepe' me'te·or (krāp' mē'tē·ŏr). A fine grade of silk crepe, with a satin finish on one side; — often called *crepe-backed satin* or *satin-backed crepe.*

rose point. Needlepoint lace, chiefly Venetian, with pattern of flowers in raised work connected by ornamental brides; — called also *rosaline point.*

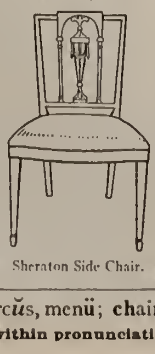
silver fox. **1.** A red fox (*Vulpes fulva*) of a color phase in which the fur is mostly glossy black, with a certain number of the guard hairs banded with white near the tips of the hairs, giving a silver-tipped appearance; also, its fur or pelt. The white in the fur is variable and the best skins are very valuable, on account of their beauty and the difficulty of successfully imitating them. See FOX, 1.

Oriental rug *or* **carpet.** Any hand-woven or hand-knotted one-piece rug or carpet made in the Orient, esp. in Asia. With the exception of kilims and Sumaks, Oriental carpets and rugs have a pile produced by knotting around one or, generally, two warps of cotton or wool, one or several tufts of colored woolen or silk (or in a few instances, cotton) yarn, over each row of which a woof shot is passed. The texture, workmanship, and esp., the designs, vary with the locality in which the rugs are produced and with the mode of living and traditions of the weavers. They fall into six main groups: ***Turkish, Persian, Caucasian, Turkoman, Chinese,*** and ***(East) Indian,*** but are further divided and subdivided. In commerce, they are known as ***antiques*** when at least 100 years old, as ***semiantiques*** when approximately 40–100 years old, and ***modern*** when less. Many old types are now produced for commerce by organized industries.

Bo·kha'ra (bō·kä'rä), *n.* Also **Bu·kha'ra** (bōō-).
2. A Turkoman rug in small and large sizes, coming from the region of Bokhara, distinguished generally by very fine knotting, geometric allover designs (octagons, diamonds, cross stars, angular shrubs, and flowers), and its prevailing colors, mulberry red with touches of dark blue, vermilion, and ivory white. ***Royal Bokhara*** and ***Princess Bokhara*** are trade names of better grades of Bokhara rugs.

tap'es·try (tăp'ĕs·trĭ), *n.; pl.* -TRIES (-trĭz). [F. *tapisserie*, fr. *tapisser* to carpet, to hang or cover with tapestry, fr. *tapis* a carpet, carpeting, fr. OF. *tapiz*, fr. Gr. *tapētion*, dim. of *tapēs* a carpet, rug; cf. L. *tapete*, fr. Gr. Cf. TAPE, TAPET, 1st TAPIS.] **1. a** A heavy hand-woven textile of cloth weave, or sometimes twill, commonly figured and used as a wall hanging, carpet, or furniture covering. In a tapestry the weft threads do not run from selvage to selvage but form the pattern, each one being woven back and forth over the warp threads only where its particular color is needed. In most European tapestries, where weft threads of one color meet weft threads of another color a slit is left in the weaving (***slit tapestry***). In many oriental tapestry weaves, such as cashmere shawls, weft threads of one color interlock with adjacent weft threads of another color (***interlocking tapestry***). In many primitive tapestries weft threads of one color are dovetailed with adjoining weft threads of another color (***dovetailed tapestry***). In all true tapestries both sides are the same except that loose ends of threads usually appear on the wrong side. **b** A machine-made imitation of the above, which is of entirely different weave and not reversible.

Sher'a·ton (shĕr'ȧ·tŏn), *adj.* Designating a light, elegant style in furniture, developed around 1800 by Thomas Sheraton, an English designer, and much imitated by excellent cabinetmakers in America of the same period. Sheraton's furniture is marked by straight lines and graceful proportions, delicate and often ingenious construction, much inlay, esp. of satinwood, and, as a rule, sparing use of carving except in the characteristic reeding of tapering legs.



Sheraton Side Chair.

Wedgwood ware, *or* **Wedg'wood,** *n.* The fine hard porcelainlike ware first produced by Josiah Wedgwood. This consists characteristically of a tinted clay ground with small cameo reliefs in white paste, applied before firing. The reliefs are typically of classical design and of delicately minute detail.

Philately

phi·lat'e·list (fĭ·lăt'ĕ·lĭst), *n.* One versed in philately; one who collects and makes a study of postage stamps. — **phi·lat'e·list,** *adj.* — **phi·lat'e·lis'tic** (-lĭs'tĭk), *adj.*

phi·lat'e·ly (-lĭ), *n.* [F. *philatélie*, fr. Gr. *philos* loving + *ateleia* exemption from tax (*telos*); cf. E. *frank* to send free.] The collection and study of postage stamps, stamped envelopes, or the like, of various issues; stamp collecting. — **phil'a·tel'ic** (fĭl'ȧ·tĕl'ĭk), **phil'a·tel'i·cal** (-ĭ·kăl), *adj.* — **phil'a·tel'i·cal·ly,** *adv.*

sur'charge' (sûr'chärj'; sûr·chärj'), *n.* [F.]
4. An overprint on a postage stamp to give it a new postal value; often, loosely, an overprint or surprint; also, *Colloq.*, a stamp with a surcharge.

o'ver·print' (ō'vĕr·prĭnt'), *n.*
2. *Philately.* Any word, inscription, denomination, or device, printed across the face of a stamp, altering its value, use, locality, etc. Cf. SURCHARGE, 1.

wa'ter·mark' (wô'tĕr·märk'; wŏt'ĕr-), *n.* **1.** A mark indicating the height to which water has risen, or at which it has stood; esp., a tidemark.
2. A marking in paper resulting from differences in thickness usually produced by pressure of a projecting design on the dandy roll, in the mold, etc., and visible when the paper is held up to the light. Also, the design or the metal pattern producing the marking. Cf. FOOLSCAP, 3; PAPER, *n.*, 1. In philately, watermarks are important in distinguishing varieties of stamps. The chief kinds are: ***unit***, one entire design on a single stamp; ***multiple***, one design repeated in whole or in part on a single stamp; ***sheet***, or ***over-all***, a design so large that it spreads over an entire sheet, only a portion showing on a stamp; ***continuous***, similar to the *sheet*, but consisting of words or a phrase repeated continuously, only part of the words appearing on each stamp; ***stitch***, an impression of the joint (stitches) in the endless belt of cloth carrying the pulp, which in the manufacture of postal paper is caused by the dandy roll.

semipostal stamp. *Philately.* A stamp sold at a premium over its franking value. Semipostal stamps are issued for various humanitarian purposes, as for the Red Cross, child welfare, tuberculosis prevention, etc.

per'fo·ra'tion (-rā'shŭn), *n.* [Cf. F. *perforation.*] **1.** Act of perforating, or state or process of being perforated.
2. a A hole made by or as if by boring, punching, or piercing; an aperture, as one of a series of small holes made in a leaf or sheet of paper to allow a part to be detached easily. **b** Specif., *Philately*, one of such a series of holes in which a part of the paper is removed; — distinguished from *roulette.* Philatelic perforations are variously described as: *fine* or *coarse*, according to the size of the holes and distance between the teeth; *rough*, when the holes are not clean cut; *compound*, when the horizontal gauge (along the top and bottom of a stamp) differs from the vertical (along its sides); and *lozenge, hyphen-hole*, or *square*, according to the shape of the holes. *Pin perforation* is not a true perforation.

Motion Pictures and Photography

shut'ter (shŭt'ĕr), *n.*
5. *Motion Pictures.* A moving element, usually rotating, which intercepts the light in the optical path of a motion-picture mechanism at a predetermined interval.
7. *Photog.* A mechanical device of various forms, as the iris diaphragm, focal-plane blind, or the disks with cutout sectors used for motion pictures, attached to a camera for opening and closing to expose the film or plate.

color photography. Production of pictures in nearly natural colors by photography. The numerous processes may be divided into two general classes, the *additive* and the *subtractive.* In the ***subtractive***, the natural colors are obtained by subtracting other colors from white light. Two or more negatives are made, each behind a differently colored transparent screen, or filter, which cuts off light rays of the color complementary to it and allows others to affect the sensitive emulsion. A positive from each negative is stained with the color complementary to that of the filter used, and all are superposed to form the complete picture. In the ***additive process***, minute colored spots blend to form the picture. An example of this method is the ***screen-plate process***, in which minute colored particles are incorporated between the sensitive emulsion and the glass, and the negative after exposure is reversed chemically to a positive so that spots corresponding to the correct colors are revealed and the others are hidden by the darkened spots of the photograph.

go'bo (gō'bō), *n.* [Origin uncert.] *Motion Pictures.* **a** A black or dark strip of wallboard used to shield a camera lens from lights. **b** A similar device to shield a microphone from sounds.

klieg, *or* **kleig, light** (klēg). [After *Kliegl* brothers, the inventors.] A kind of arc light, used in taking motion pictures, with carbons that emit a light rich in actinic rays.

ha·la'tion (hă·lā'shŭn; hā-), *n.* [See HALO.] *Photog.* A spreading of light beyond its proper boundaries, such as may appear, in an interior view, around a window facing the sky. The terms *nonhalation* and *antihalation* are applied to plates specially prepared to obviate this defect.

double exposure. *Photog.* Two exposures, made inadvertently, or intentionally to produce a desired effect, on the same sensitized surface.

still (stĭl), *n.* [From STILL, *adj.*; cf. G. *stille.*]
4. *Photog.* A still photograph; specif., *Motion Pictures*, an individual photograph, as of some part of a motion picture, used for advertising purposes.

blimp (blĭmp), *n.* [Prob. suggested by *limp*, adj.]
2. *Motion Pictures.* A soundproof housing for a camera, used in taking sound motion pictures. *Slang, U. S.*

fix, *v.*; FIXED (fĭkst) or, *Chiefly Poetic*, FIXT; FIX'ING. [From *fix*, adj., or fr. ML. *fixare*, fr. L. *fixus*, past part. of *figere.* See DIKE.] *Transitive:*
13. *Photog.* To render permanent by removing the unaffected light-sensitive material from a negative or positive.

Card Games

bridge (brĭj), *n.* [ME. *brig, brigge, brug, brugge*, fr. AS. *brycg, bricg*; akin to OFris. *brigge, bregge*, D. *brug*, OHG. *brucca*, G. *brücke*, ON. *bryggja, brū*, Gaulish *brīva* bridge, OSlav. *brŭvŭno* beam (the basic meaning of the Teut. word).]
8. [Formerly called *biritch* (of unknown origin; not Russ., as often stated), appar. changed to *bridge* from the dealer's *bridging*, or passing, the declaration of trumps to his partner.] *Card Games.* **a** A card game derived from whist and superseded by auction bridge, from which it differed in that (1) the trump was always named by the dealer or his partner, (2) the dealer always played the dummy no matter which partner made the trump, (3) either side could score toward game on any given hand, and (4) the scoring was different, the bonus for the rubber being only 100, and the values of odd tricks being: in spades, 2; clubs, 4; diamonds, 6; hearts, 8; no-trump, 12. **b** = AUCTION BRIDGE (which see). **c** = CONTRACT BRIDGE (which see). *Bridge* (in the sense of a card game) is prefixed to definitions in this Dictionary to indicate the field in which the word or sense is typically used.

na·po'le·on, *n.* [After the Emperor *Napoleon* I.]
2. Usually shortened to **nap.** **a** A card game in which each player holds five cards, and each in turn to the left of the dealer names the number of tricks he will undertake to win. The highest bidder must lead a trump. If he makes good his bid, each player pays him a chip for each trick. If he fails, he pays each a chip for each trick bid. **b** A bid to win all five tricks. Any player bidding nap wins 10 chips from each player if he succeeds, or pays 5 to each if he fails. See WELLINGTON.

po'ker (pō'kĕr), *n.* [Perb. fr. G. *poch, poche, pochspiel* (cf. D. *pochspel*), a game resembling poker, fr. *pochen* to boast, act defiantly, bluff, (at cards) to play, not pass, bet, orig., to hang, knock (for meaning cf. E. names of similar games, *brag, bluff*). See POKE to thrust.] Any of various card games in which players bet on the value of their hands to win a pool. When one player has bet, those following must equal his bet (***see*** or ***call*** him), increase his bet (***raise*** him), or drop out of the game for that hand (***pass***). In ***draw poker***, the principal game, each player, after contributing his ante, may discard any of his cards and receive (***draw***) from the dealer an equal number. In ***straight poker***, or ***bluff***, each player in turn puts up the ante for the rest of the players. In ***stud poker*** all cards but the first round are dealt face up and the betting usually begins after the second round. The rank of the usual poker hands, in ascending sequence, is as follows: pair, two pairs, three of a kind, straight, flush, full house, four of a kind, straight flush, royal flush. See ANTE, *n.*, **a**; BLIND, *n.*, 8; DEUCES WILD; FREEZE-OUT, 1; JACK POT; TABLE STAKES; WHISKY POKER.

roo'dle (rōō'd'l), *n.* [G. *rudel* pack, crowd, whisk, bubbuh.] *Poker.* One hand of a round of hands played, with special provisions, after an especially high hand, as four of a kind or a full house, has been held by any player. In a ***round of roodles***, each deal is a jackpot; every player must ante; the deal is not passed if the pot is unopened; and the limit is usually doubled.

Mathematics

di·vi'sion (dĭ·vĭzh'ŭn), *n.* [ME. also *devision*, fr. OF. *devision, division*, fr. L. *divisio*, fr. *dividere.* See DIVIDE.]
11. *Math.* **a** The process of finding how many times one number or quantity is contained in another; also, the rule by which the operation is performed; the inverse of multiplication; the operation of finding the other factor (the quotient) of a given product (the dividend) when one factor (the divisor) is given. The sign ÷, **division sign** or **mark**, placed between numerical expressions indicates that the preceding quantity is to be divided by the following quantity. In ***long division***, the work is displayed in detail. In ***short division***, the necessary subtractions are performed mentally, only the quotients and differences being shown. In ***synthetic division***, a polynomial is divided by another polynomial of the first degree by writing down only the coefficients of the various powers of the variable, the sign of the absolute term in the divisor being changed so as to replace subtractions by additions. **b** A section; the separation of a geometric or other form into distinct parts.

ge·om'e·try (jē·ŏm'ē·trĭ), *n.; pl.* -TRIES (-trĭz). [OF. *geometrie*, fr. L. *geometria*, fr. Gr. *geōmetria*, fr. *geōmetrein* to measure land, fr. *gaia, gē*, the earth + *metrein* to measure. So called because one of its earliest and most important applications was to the measurement of the earth's surface. See GEOMETER.] **1.** That branch of mathematics which investigates the relations, properties, and measurement of solids, surfaces, lines, and angles; the science that treats of the properties and relations of spatial magnitudes; the theory of space and of figures in space. See ABSOLUTE, *n.*, 1; ALGEBRAIC GEOMETRY; ANALYTIC GEOMETRY; CIRCLE GEOMETRY; DENUMERATIVE GEOMETRY; DESCRIPTIVE GEOMETRY; EUCLIDEAN GEOMETRY; GEODESIC GEOMETRY; HYPERBOLIC GEOMETRY; INTUITIONAL GEOMETRY; INVERSIVE GEOMETRY; LINE GEOMETRY; METAGEOMETRY; NATURAL GEOMETRY; PROJECTIVE GEOMETRY; RIEMANNIAN GEOMETRY; RIEMANNIAN MEASURE OF CURVATURE; SPECULATIVE GEOMETRY; UNIVERSAL GEOMETRY.
2. A particular type or system of geometry; as, found in *geometries* of more than three dimensions.
3. A treatise on this science.

La·place's' e·qua'tion (lȧ·plȧs'ĭz). [See LAPLACIAN.] *Math.* The equation $\frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 u}{\partial y^2} + \frac{\partial^2 u}{\partial z^2} = 0$, often written $\nabla^2 u = 0$ or $\Delta_2 u = 0$, (x, y, z) being the rectangular Cartesian co-ordinates of a point in space and u being a scalar-point function. It is exceedingly important in physics.

difference equation. *Math.* An equation connecting values of an unknown at two or more equally spaced values of the independent variable; as, $u(x+h) - u(x) = x^2$; $u(x+2h) + xu(x+h) - u(x) = 0$. In a ***linear difference equation*** the unknown function, u, occurs linearly and the coefficients are functions of the independent variable x, as in the examples above. A ***homogeneous difference equation*** contains no term independent of the unknown function u, as in the second example above. A ***nonhomogeneous difference equation*** contains one or more terms independent of the unknown function, as in the first example above.

Webster's New International Dictionary, *Second Edition*

A Composite Page of Terms in Sports and Games

bas'ket·ball' (-bôl'), *n.*, *or* **basket ball. 1.** A game, usually played indoors, in which each of two contesting teams endeavors to toss an inflated ball into an elevated goal, originally an ordinary fruit basket, defended by the opponents. There are regularly five players on each side: a center, two guards, and two forwards. The game was invented in 1891 by James Naismith, at the Y.M.C.A. College at Springfield, Mass.

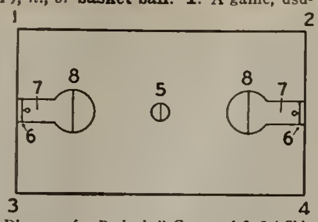


Diagram of a Basketball Court. 1 2, 3 4 Side Lines; 1 3, 2 4 End Lines; 5 Center Circle (radius, 2 ft.); 6, 6 Backboards (2 ft. from End Lines) and Baskets; 7, 7 Free-throw Lanes (width, 6 ft.); 8, 8 Free-throw Lines (length, 12 ft., drawn parallel to, and 17 ft. from, End Lines). Dimensions of Court, Maximum, 94 × 50 ft.; Minimum, 60 × 35 ft. Rings of baskets are 10 ft. above floor.

2. The ball used in playing basketball.

foul, *n.* **3.** In various games or sports, an act committed contrary to the rules; a foul stroke, hit, play, or the like; specif.: **a** *Baseball.* A foul ball. **b** *Basketball.* An infraction of the rules involving a penalty of one or more free throws, classed as a ***personal foul*** if it involves personal contact, as in holding, tripping, charging, etc., or a ***technical foul*** if there is no personal contact, except that blocking, with or without personal contact, is always a personal foul.

balk, *n.* **10.** *Baseball.* Any of various illegal motions, made by the pitcher, calculated to deceive a batsman or base runner as to where the ball will be thrown; esp., any motion made by the pitcher, while in position, as if to deliver the ball to the bat or to throw to first base, when occupied by a base runner, without completing the throw; also, delivery of the ball to the batsman when the catcher is standing outside the lines that limit the catcher's position. A balk entitles each base runner to advance one base.

squeeze play. a *Baseball.* A form of hit-and-run play in which, when there is a runner on third base and not more than one out, the batter bunts a pitched ball previously designated by signal, and the runner starts for the home plate as soon as the pitcher makes a motion to pitch that ball.

field'er's choice (-dẽrz). *Baseball.* An attempt by a fielder, when handling a batted ball, to retire a base runner other than the batter, when a play to first base would have retired the batter.

balk line (bôk). **1. a** (1) In billiards, a line across a billiard table near one end, marking a limit within which the cue balls are placed in stringing for the lead, in beginning a game, etc. (2) A similar line on a bagatelle board. **b** Also, in billiards, one of four lines drawn parallel to the cushions, and usually at a distance of 14 to 18 inches, dividing the table into nine compartments, used in playing the **balk-line game.** See BILLIARDS.

goo'gly (gōō'glĭ), *n.* [Prob. fr. *goggle*, obs. *google*.] *Cricket.* A ball so bowled that it swerves one way and breaks the other.

york'er (yôr'kẽr), *n.* *Cricket.* A bowled ball which pitches in or near the block hole.

round, *n.* **12.** *Archery.* A certain number of shots at given distances, recognized and named by rule or custom. In England the chief rounds are:

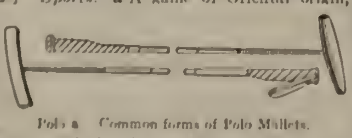
	arrows	yards
York (men's championship)	72	100
National (women's championship)	48	60
Hereford	72	80
"	48	60
"	24	50
St. George's	36	100
" "	36	80
" "	36	60

In America the chief rounds besides the English rounds are:

	arrows	yards
American	30	60
"	30	50
"	30	40
Junior American	30	50
" "	30	40
" "	30	30
Columbia	24	50
"	24	40
"	24	30
Metropolitan	30	100
"	30	80
"	30	60
"	30	50
"	30	40
Ohio	96	60
Potomac	24	80
"	24	70
"	24	60

For men's championships the Double York and Double American are added; for women's the Double National and Double Columbia. See DOUBLE ROUND.

po'lo (pō'lō), *n.* [Balti, prop., the ball used in the game; cf. Tibetan *pulu*.] *Sports.* **a** A game of Oriental origin, played with a wooden ball and mallets having long, flexible handles, by players, usually four on a side, mounted on horseback.



Polo a. Common forms of Polo Mallets.

A polo field is usually about 300 yards in length and 160 to 200 in width, with goals (each 8 yards wide) placed 250 yards apart. A game usually lasts about an hour, and is divided into *chukkers*, or periods of 7½ or 8 minutes each, with a brief intermission between periods. When played indoors, the players are usually limited to three on a side. **b** Any of several similar games, as one in which the players wear ice skates (***rink polo***) or roller skates (***roller polo***). **c** = WATER POLO.

Sports and Games

On this composite page, and on the regular vocabulary pages following, are examples of definitions in sports and games. In order to present a variety of terms on this page, only the parts of definitions concerning sports or games are given.

Many such definitions are accompanied by pictorial illustrations, as *half nelson;* and for some of the principal sports, diagrams and explanations of the playing areas and positions of players are included, as *basketball* and *hockey* on this page, and *football* and *cricket* on following pages.

rabbit punch. *Boxing.* A short chopping blow delivered to the back of the neck or the base of the skull when the body of the adversary is bent forward.

wel'ter·weight' (-wāt'), *n.* [From earlier *welter* a heavyweight, prob. fr. *welt* to thrash, beat.] **1.** *Horse Racing.* A weight of 28 pounds (one of 40 pounds is called a *heavy welterweight*) sometimes imposed in addition to weight for age, chiefly in steeplechases and hurdle races. **2.** *Boxing & Wrestling.* A boxer or wrestler whose weight does not exceed 147 pounds. Cf. LIGHTWEIGHT, *n.* **a.**

half nelson. *Wrestling.* A hold in which one arm is thrust under the corresponding arm of the opponent, generally from behind, and the hand placed upon the back of his neck. In the ***full nelson*** both hands are so placed. For ***quarter nelson, three-quarters nelson,*** see *Illustrations.*

1 Quarter Nelson; 2 Half Nelson; 3 Three-quarters Nelson; 4 Full Nelson.

carte (kärt), ‖**quarte** (kȧrt), *n.* [F. *quarte*, prop., a fourth. See QUART.] *Fencing.* A position in thrusting or parrying, with the inside of the hand turned upward and the point of the weapon toward the adversary's right breast.

wing back formation. *Am. Football.* A formation on the offense by which one of the backfield players is placed just behind, or slightly beyond and to the rear of, the end; — called also ***single wing back formation.*** In a ***double wing back formation,*** two of the backfield players are thus placed, one behind each end of the line.

spinner, *n.* **8.** *Sports.* **a** A ball, as in cricket, delivered with a spin on it. **b** *Football.* A play in which the ball carrier spins around in the attempt to deceive the opponents as to where he plans to strike the line.

line of scrimmage. *Amer. Football.* For each side, an imaginary line, parallel to the goal lines, passing through that point of the ball nearest the side's own goal line when the ball is laid on the ground, with its long axis parallel with the side lines, preparatory to a scrimmage.

fair catch. a *Amer. Football.* A catch of a kicked ball made by a player on side who makes a prescribed signal that he will not attempt to advance the ball when caught. He may not then be interfered with. **b** *Rugby Football.* A catch made direct from a kick or knock-on by a player of the opposing side who at the same time marks with his heel the spot where the catch is made; — called also *mark.* Such a catch entitles the player making it to a free kick.

scrum half (skrŭm). *Rugby Football.* A halfback whose position is close to the scrummage. Cf. STANDOFF HALF.

scrum'mage (skrŭm'ĭj; *dial. also* skrŏŏm'-), *n.* Scot. & dial. Eng. var. of SCRIMMAGE. Specif., *Rugby Football,* a certain play or formation (in which one or more players, usually all of the forwards, of each side close round the ball when it is on the ground (***loose scrummage***), or place themselves in close formation (***tight scrummage***) in readiness to dribble the ball, as soon as it is put in play between the opposing front ranks, or to heel it so that one of the backs may secure it, and kick, pass, or run with it) used to restart the play after a knock-on, forward pass, etc.; — popularly called **scrum.** Cf. SCRIMMAGE, **2 b,** 1st BULLY, 1.

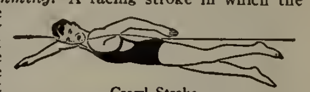
standoff half. *Rugby Football.* A halfback whose position is between the scrum half and the three-quarter backs.

‖**sla'lom** (slä'lŏm), *n.* [Nor.] Skiing, usually in a race against time, in a zigzag downhill course between upright obstacles, generally flags.

Tel'e·mark (tĕl'ĕ·märk; tā'lĕ-), *n.* [From *Telemark*, southern Norway.] *Skiing.* A turn in which the ski which is to be on the outside of the turn is advanced considerably ahead of the other ski and then turned inward at a steadily widening angle; — called also ***Telemark turn.*** — **tel'e·mark,** *v. i.*

7. *Fancy Diving.* In a dive of the somersault type, a series of movements in which a diver clasps his ankles with his hands and rolls himself into a ball in order to increase the rate of his spin. See SOMERSAULT, 2.

crawl, *n.* **2.** *Swimming.* A racing stroke in which the swimmer, rolling the body very slightly or keeping it flat on the belly in the water with the face submerged except for regular breathing intervals, executes a double overarm stroke, and a thrashing movement with the legs at a rate of four, six, eight, or ten beats to an arm cycle, the flection of the knees being reduced to a minimum and the feet, usually with toes turned inward, executing a fluttering movement in time with a leg thrash; — often called the ***American crawl.*** The stroke originated in Australia and its earliest, two-beat form, now disused, was called the ***Australian crawl.*** Variations in leg and foot movement frequently occur, one such variation being the ***trudgen crawl*** in which a scissors kick, executed on the breathing stroke, is used along with three or five beats of the thrash.



Crawl Stroke.

volley, *n.* **4.** *Sports.* **a** *Tennis.* The flight of the ball, or its course before striking the ground; as, a ball hit on the *volley;* hence, a return of the ball before it touches the ground. **b** *Cricket.* A full pitch. **c** *Association Football.* A kick of the ball before it rebounds.

let, *n.* **2.** *Lawn Tennis, Rackets, etc.* An obstruction of the ball in some way specified as such in the rules, as a served ball otherwise good which touches the net, or a ball which a player is prevented from serving or returning by an accident. In such a case the ball is replayed.

telltale, *n.* **8.** *Rackets, Squash, etc.* A strip, usually of wood or metal, on the front wall of the court to a height of from 2 to 2½ feet above the ground, over which the ball must be hit.

racket, *n.* **2.** *pl.* A game played with ball and rackets in a four-walled court. The ball is served against an end wall (the ***front,*** or ***service, wall***) above a line called the ***service line,*** and must touch the floor for the first time within the boundaries of a half of the rear portion of the floor, called a ***service court.*** Returned balls must strike the front wall above a low board at its base, the ***telltale,*** before touching the floor. On both service and returns all walls or any of them may be used as the cushions are in billiards.

fly, *n.* **5.** *Angling.* A fly hook dressed with feathers, tinsel, etc., in imitation of a fly, — used in angling.

Fly, 5. 1 Gut; 2 Head; 3 Wing; 4 Body; 5 Butt; 6 Tail; 7 Tag; 8 Hackle.

tal'ly-ho' (tăl'ĭ·hō'; 66), *interj.* [Origin uncert.; cf. F. *taïaut*, OF. *taho, tielau.*] A huntsman's haloo at sight of the fox. If the fox returns, it is ***tallyho back;*** if the fox crosses, it is ***tallyho over.***

Scotch foursome. *Golf.* A four-ball match; — incorrectly so called.

skeet (skēt), *n.* A form of trapshooting in which clay targets are thrown in such a way as to duplicate the angles of flight found in wing shooting.

hock'ey (-ĭ), *n.* [Perh. fr. OF. *hoquet* shepherd's crook, fr. *hoc* hook, fr. MD. *hoek.* See HOOK.] **1.** A game in which two parties of players, provided with sticks curved or hooked at the end, seek to drive a ball or other small object through opposite goals. In hockey as now played on land, sometimes called ***field hockey,*** there are eleven players on a side; the field is 100 yards long by 50 broad, the goals twelve feet broad by seven high. In ***ice hockey,*** played in a rink approximately 200 feet long by 85 wide by players on skates, there are six players on a side, the goals are six feet broad and four high, and instead of a ball a disk (called the *puck*) of vulcanized rubber is used.

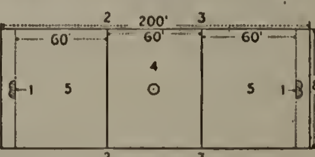


Diagram of a Hockey Rink. 1, 1 Goal Lines and Goals (each consisting of two goal posts, four feet in height, set six feet apart, and supporting a crossbar, the whole structure provided with a goal net extending back of the goal line); 22, 33 Defending recognized; 5, 5 Defending Zones (for defending sides) or Attacking Zones (for attacking sides), in which offside play by the attacking side only is recognized.

2. *pl.* HOCKEYS (-ĭz). A hockey stick.

la·crosse' (lȧ·krŏs'; 185), *n.* [F. *la crosse*, lit., the crosier, hooked stick. See CROSIER; cf. CROSSE.] A game of ball, originating among the North American Indians, long the popular field sport of Canada, and now played also in England, Ireland, Australia, and the United States. It is usually played on a field from 70 to 85 yards wide and 110 yards long between goals, with 20 to 35 yards of clear playing space behind each goal. There are 12 players on each of the two sides. Each player carries a long handled racket, or *crosse.* The ball is not handled, but caught, carried, and thrown with the crosse, the object being to throw it through the opponents' goal.

9. *Archery.* **a** A piece of hardwood wedge-spliced, as the forepart of an arrow shaft, on softwood for balance and strength. **b** In Scotland, an arrow which strikes the leg of a clout stand; in England, one within 12 inches of the clout. **10.** (*pl.* FOOTS) *Basketry.* The bottom woven edge of a basket or the like. See BASKET, *Illust.* **11.** *Bot.* **a** In mosses, the basal portion of the sporogonium, embedded in the gametophyte and absorbing food from it. **b** In ferns and fern allies, an organ of the young sporophyte by which it for a time absorbs nourishment. **12.** *Mech.* In a sewing machine, the piece that holds the cloth steady; — called also *presser foot.* **13.** *Mil.* Soldiers who march and fight on foot; infantry. **14.** *Mining.* Short for FOOTWALL. **15.** *Music.* **a** *Obs.* = 3d BURDEN, 2. **b** *Obs.* A drone bass. **c** The lower part of an organ pipe. See *Illusts.* of FLUE PIPE, REED PIPE. **16.** *Naut.* The lower edge (of a sail). **17.** *Print.* Of a type, the lowest part of the body on either side of the groove. See TYPE, *Illust.* **18.** *Pros.* A group of syllables marked off as constituting a metrical unit in verse, analogous to a measure in music; one of the regularly recurring basic divisions of a verse whose pattern is determined in classical or quantitative verse by time, usually three or four morae, in syllabic verse by number of syllables (as a disyllabic *foot*, a trisyllabic *foot*), and in purely accentual verse by a single pronounced accent without strict regard to the number of accompanying syllables; a unit of meter corresponding to a rhythmic wave with its peak indicated by a long or stressed syllable, and its fall by short or unstressed syllables, usually one or two in number. That time, accent, and, probably, number of syllables, further determine the character of every kind of verse is not questioned by prosodists, but whether they produce the same rhythm as that marked by metrical feet is still a question. Some prosodists would restrict the use of *foot* to the metrical unit of quantitative and of syllabic verse.
— ***at foot.*** Said of an animal recently born and following the dam. — ***at one's feet*** *or* (formerly) ***foot.*** On the ground near one's feet; hence, manifesting devoted allegiance or obedience, subjection, supplication, etc. — ***off its feet.*** *Print.* See under OFF. — ***off one's feet.*** Emotionally beyond self-control; as, carried *off his feet* by enthusiasm. — ***on foot.*** **a** Walking or running; afoot. **b** In motion; astir. **c** In progress or activity; "going on." — ***on one's feet.*** In a position to go on; fairly established. — ***to find, know, or take, the length of one's foot.*** To discover, know, or try to learn the characteristics of a person, esp. in order to manage him. *Slang, Eng.* — ***to have one foot in the grave.*** To be near death because of enfeebled condition or old age, esp. the latter. — ***to put, or set, one's best foot foremost.*** To do one's best to get on (literally or figuratively); to make as good an appearance as possible. See BEST FOOT FOREMOST. *Colloq.* — ***to put, or set, one's foot down.*** To take a resolute stand; to be determined. *Colloq.* — ***to put, or set, one's foot down upon.*** To repress decisively; to refuse to permit or consent to. — ***to put one's foot into it.*** To involve oneself in an embarrassing or troublesome situation. *Colloq.* — ***under foot.*** **a** Under the feet; figuratively, in subjection. **b** *Naut.* Beneath the bows (of a ship or boat). **c** In the way. — ***with both feet.*** Heavily; solidly; emphatically; completely. *Slang.*
☞ COMBINATIONS and PHRASES are:

foot accelerator	foot-free	foot scraper
foot bath	foot-lame	foot specialist
foot bellows	foot lever	foot-tiring, *adj.*
foot bone	foot-licking, *adj.*	foot tour
foot carpet	foot measure	foot track
foot correctionist	foot passenger	foot trail
foot cushion	foot pavement	foot traveler
foot doctor	foot road	footwalk
footfarer	footroom	foot walker
foot-faring, *adj.*	foot rule	footway
foot-firm, *adj.*	foot-running, *adj.*	foot-weary

-foot (-fo͝ot). *Foot*, used in combinations, as in colts*foot*.
foot (fo͝ot), *v.*; FOOT'ED; FOOT'ING. *Intransitive*: **1.** To tread to measure or music; to dance; trip; skip.
2. To walk; — opposed to *ride* or *fly*.
3. To move, esp. as a ship; as, the yacht *foots* fast.
4. *Falconry.* To seize prey with the talons.
—, *Transitive*: **1.** To tread; to walk, run, or dance, on, over, or through; as, to *foot* the green; to *foot* a measure.
2. **a** *Obs. exc. Dial.* To kick with the foot; to spurn. **b** To seize or strike with the talons.
3. To set on foot; to establish.
4. **a** To sum up, as the numbers in a column; — sometimes with *up*; as, to *foot* (or *foot up*) an account. **b** *Colloq.* To pay (a bill, expenses, etc.).
5. To make or renew the foot of, as of a stocking.
6. To track. *Now Rare.*
7. To set (turf sods) on end in small heaps to dry. *Ir.*
8. *Archery.* To splice with a footing; as, *footed* with beefwood.
foot it. To walk; dance; foot; as, finding no carriage, I had to *foot it.* "*Foot it* featly here and there." *Shak.*
foot the bill. To pay the account; also, figuratively, to suffer the consequences; meet the damages.
foot up. To amount to when added or reckoned; as, his debts *foot up* (or *foot up to*) $1,000.
foot, *adj.* Pedestrian; prosaic. *Archaic.*
foot'-act'ed, *adj.* Operated by the foot.
foot'age (fo͝ot'ĭj), *n.* **1.** Length or quantity expressed in feet; specif.: **a** *Lumber.* Board feet. See BOARD FOOT. **b** *Motion Pictures.* The total number of running feet of film used in photographing any subject.
2. *Mining.* Payment by the running foot of work; also, amount so paid.
foot'-and-mouth' dis·ease'. *Veter.* An acute contagious febrile disease affecting esp. cloven-footed animals, caused by a filtrable virus, and characterized by ulcerating vesicles, or aphthae, in the mouth, about the hoofs, and on the udder and teats; — called also *aphthous fever*, etc.
foot'back' (fo͝ot'băk'), *adv.* On foot. *Obs. exc. Dial.* — ***on footback.*** On foot.
foot'ball' (fo͝ot'bôl'), *n.* **1.** An inflated ball to be kicked in sport, usually made of a bladder or rubber bag incased in leather or of India rubber.
2. A field game played with a football, in which each of two contesting teams tries to kick or carry the ball to or through its opponent's goal or goal line. There are now three principal varieties, ***Rugby, association*** (or ***soccer***), and ***American, football.*** In the first, as principally played in the British Empire, the ball may be carried, kicked, or thrown, provided it is not thrown forward, and a player in possession of the ball may be tackled bodily. Interference in behalf of a player carrying the ball is illegal, and play is frequently restarted by a characteristic play called the *scrummage* (which see). In *association football* all use of the arms or hands is prohibited except to the goalkeeper, and the ball is propelled by kicking, or striking it with the head, shoulder, or other parts of the body except the arms. *American football* is a development of the

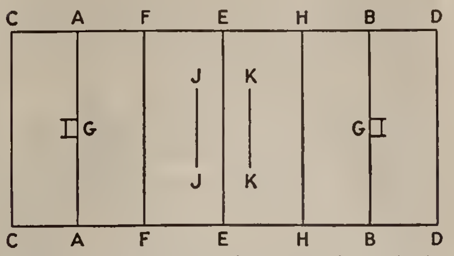


Diagram of a Rugby Football Field. *ABBA* Field of Play (not exceeding 110 yd. in length or 75 yd. in breadth) bounded by the Goal Lines *AA* and *BB* and the Touch Lines *AB* and *AB*; *AC, AC, BD, BD* Touch-in-goal Lines; *ACCA, BDDB* In-goals; *CC, DD* Dead-ball Lines; *EE* Halfway Line; *JJ, KK* 10-yd. Lines; *FF, HH* 25-yd. Lines. *G, G* Goals, each consisting of two goal posts, placed 18 ft. 6 in. apart, supporting a crossbar at a height of 10 ft. above the ground.

Rugby game, in which one side is allowed undisputed possession of the ball at the moment when it is put in play,

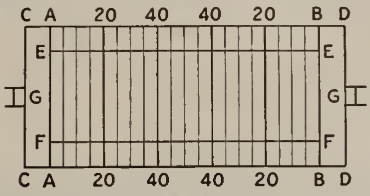


Diagram of an American Football Field. *ABBA* Field of Play (300 ft. in length and 160 ft. in width), bounded by the Goal Lines *AA AB* and *AB*; *ACCA, BDDB* End Zones; *CC, DD* End Lines; *AEEB, AFFB* Ten-yard Zones; *EE, FF* ZoneLines; *G, G* Goals, each consisting of two goal posts, placed 18 ft. 6 in. apart, supporting a crossbar at a height of 10 ft. above the ground. The Goals, originally at the middle of the Goal Lines, were withdrawn to the End Lines to prevent possible injury to players through contact with the goal posts during scrimmage.

players may run ahead of the man with the ball to prevent his being tackled, the forward pass is permitted, and, in

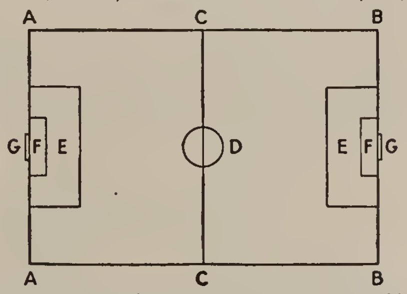


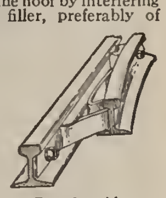
Diagram of an Association (Soccer) Football Field. *ABBA* Field of Play (not exceeding 130 yd. in length and 100 yd. in breadth, nor less than 100 yd. in length and 50 yd. in breadth), bounded by the Goal Lines *AA, BB* and the Touch Lines *AB, AB*; *CC* Halfway Line; *D* Center Circle (10 yd. radius); *E, E* Penalty Areas (each 44 yd. by 18 yd.); *F, F* Goal Areas (each 20 yd. by 6 yd.); *G, G* Goals, each consisting of two goal posts placed 8 yd. apart with a bar across them at a height of 8 ft. above the ground.

general, the play is more systematized and formal. The ball used in the Rugby and American games is ellipsoidal in shape, while the association football is spherical.
3. Hence, figuratively, a mere toy or plaything; as, the issue became a *football* of party politics.
foot'ball' (fo͝ot'bôl'), *v. t. & i.* To kick a football or as a football. — **foot'ball'er** (-bôl'ẽr), *n.* — **foot'ball'ist,** *n.*
foot'band' (fo͝ot'bănd'), *n.* **1.** A band of foot soldiers. *Obs.*
2. *Naut.* A reinforcing strip of canvas on the afterpart of the foot of a sail; a footlining.
foot base. A molding above a plinth.
foot bench. **1.** A banquette. *Obs.*
2. A foot rest for several persons.
foot'-bind'ing (fo͝ot'bīn'dĭng), *n.* Compressing the feet of girls with tight bandages, keeping the feet from being over three or four inches long, — a custom in China, never universal, and in recent years being abandoned.
foot'blow'er (-blō'ẽr), *n.* **1.** A bellows worked by foot.
2. *Glass Mfg.* = FOOTMAKER.
foot'board' (fo͝ot'bōrd'; 181), *n.*; *pl.* FOOTBOARDS (-bōrdz'). **1.** A board or narrow platform on which one may stand or brace his feet; as: **a** The foot rest of a coachman's box. **b** = FOOTPLATE. **c** A small platform at the rear of a carriage for a footman. **d** In an automobile, that part of the front flooring against which one's feet may rest.
2. A board forming the foot of a bedstead.
3. A treadle.
foot'boy' (fo͝ot'boi'), *n.* A page; an attendant.
foot brake. A brake operated by foot pressure.
foot'breadth' (fo͝ot'brĕdth'), *n.* The breadth of a foot, — used as a measure.
foot'bridge' (-brĭj'), *n.* A bridge for foot passengers only.
foot'-can'dle, *n.* *Photom.* A unit of illumination. It is the direct illumination on a surface which is everywhere one foot from a uniform point source of one international candle. It is equal to one lumen per square foot, or 10.764 luxes, or 1.0764 milliphots. — **foot'-can'dle** (66), *adj.*
foot-candle meter. *Photom.* An instrument for measuring illuminations by a standardized series of translucent spots illuminated from within a closed box by a lamp near one end. In operation, a spot disappears when it has an internal illumination exactly equivalent to the external.
foot'cloth' (fo͝ot'klŏth'; 185), *n.*; *pl.* FOOTCLOTHS (-klŏthz'; -klŏths'). **1.** Formerly, a housing or caparison for a horse.
2. A carpet; rug.
foot dirt. = FOOTS. See FOOT, *n.*, 7 b.
foot drop. **1.** *Agric. Mach.* A planting device, the seed-dropping mechanism of which is operated with the foot.
2. *Med.* An extended position of the foot caused by paralysis of the flexor muscles of the leg.

foot'ed (fo͝ot'ĕd; -ĭd; 119), *adj.* **a** Having a foot or feet, or such or so many feet; shaped in the foot. "*Footed* like a goat." *Grew.* **b** Having (so many) feet in length. **c** *Archaic.* Composed in meter. COMBINATIONS denoting *having* (so many or such) *feet* are:

barefooted	four-footed	round-footed
big-footed	goat-footed	short-footed
black-footed	golden-footed	slender-footed
catfooted	great-footed	small-footed
claw-footed	horn-footed	splayfooted
cleft-footed	jawfooted	sure-footed
cloven-footed	lame-footed	swift-footed
clubfooted	leaf-footed	thick-footed
dog-footed	left-footed	tiger-footed
dry-footed	light-footed	turtle-footed
duck-footed	lion-footed	two-footed
feather-footed	nimble-footed	web-footed
fin-footed	one-footed	white-footed
flat-footed	red-footed	wing-footed
fleet-footed	right-footed	yellow-footed

footed arrow. Arrow having a spliced fore end of hardwood.
foote'ite (fo͝ot'īt), *n.* [After A. E. *Foote*, of Philadelphia.] *Mineral.* A deep-blue hydrous copper oxychloride in prismatic crystals.
foot'er (fo͝ot'ẽr), *n.* **1.** One who goes on foot; a walker.
2. A jump, fall, or plunge feet foremost; — opposed to *header.* *Colloq.*
3. A person or thing a (specified) number of feet in height, length, or breadth; — used only in combination; as, the man is a six-*footer*; the yacht was an eighty-*footer.*
4. One who, or a machine that, knits feet on hose.
5. *Mining.* One who attaches and detaches tubs at the bottom of a haulage incline.
6. *Sports.* **a** *Slang, Eng.* Football. **b** *Bowls.* = MAT, *n.*, 7. **c** *Hawking.* One that foots. See FOOT, *v. t.*, 2 b.
foo'ter (fo͞o'tẽr), *v. i.* [F. *foutre.* See FOOTY paltry.] To trifle; idle; potter. *Slang.*
foo'ter, *n.* [See FOUTER, FOOTER *v.*] An idle, scurvy fellow. *Slang.*
foo'ter (fo͞o'tẽr). Scot. var. of FOUTER.
foot'fall' (fo͝ot'fôl'), *n.* A setting down of the foot; a footstep; also, the sound of a footstep.
foot fault. *Lawn Tennis.* A fault called against a server by reason of his failure to keep both feet behind the base line, or because of walking, running, or failure to maintain contact with the ground, during the delivery of a service. — **foot'fault'** (fo͝ot'fôlt'), *v. i.*
foot'folk' (-fōk'), *n.* Infantry. *Rare.*
foot front. = FRONT FOOT.
foot'ful (fo͝ot'fo͝ol), *n.* As much as can be grasped with the foot.
foot'gang'er (-găng'ẽr), *n.* [D. *voet* foot + *ganger* walker.] A young locust which has not acquired wings. *S. Africa.*
foot'gear' (-gēr'), *n.* Covering for the feet, as stockings, shoes, or boots.
foot'geld' (-gĕld'), *n.* *O. Eng. Law.* A fine for keeping an unexpeditated great dog in a forest.
foot'glove' (-glŭv'), *n.* A kind of stocking or toed shoe. *Obs.*
foot'-grain', *n.* A unit of work equal to 1.9371×10^{-4} joules.
foot-grain per second. A unit of power equal to 1.9371×10^{-4} watts.
foot guard. A guard for the foot; specif.: **a** A boot or pad for a horse's foot to prevent injury to the hoof by interfering or overreaching. **b** *Railroads.* A filler, preferably of metal, to fill spaces between converging rails to prevent the feet of persons from becoming accidentally wedged between the rails.



Foot Guard b.

Foot Guards (gärdz), *pl.* Infantry soldiers belonging to select regiments called the Guards. In England they are composed of the Grenadier, Coldstream, Scots, Irish, and Welsh Guards, with the special duties of home defense and guarding the sovereign, although they may be sent on foreign service.
foot'halt' (fo͝ot'hôlt'), *n.* A disease affecting the feet of sheep.
foot'hill' (-hĭl'), *n.* A hill at the foot of higher hills.
foothill death camas. The sand corn.
foothill pine. The digger pine.
foothill yellow pine. = BULL PINE **a**.
foot'hold' (-hōld'), *n.* **1.** A hold for the feet; place where one may tread or stand; stable position of the feet; footing.
2. A light rubber overshoe or sandal, with only a strap round the heel; — called also *tip.*
footh (fo͞oth). Var. of FOUTH.
foot'hook' (fo͝ot'ho͝ok'), *n.* = FUTTOCK.
foot'hot' (fo͝ot'hŏt'), *adv.* Hastily; hotfoot. *Obs. exc. Dial.*
foot'ing, *n.* **1.** Standing; placing and position of the feet so as to ensure stability; as, you had best look to your *footing.*
2. Ground for the foot; place for the foot to rest on; foothold; hence, established place; basis for operation.

Every step gained is a *footing* and help to the next. *Holder.*

3. A track; footprint. *Archaic.*
4. A moving on foot; specif., walk; step; tread; dance; also, progress; coming.

Hark, I hear the *footing* of a man. *Shak.*

5. **a** Material for making the feet, as of stockings. **b** Act of putting a foot to anything; also, that which is added as a foot; as, the *footing* of a stocking.
6. Relative position; status; condition; rank; hence, terms of social intercourse; as, they are on a friendly *footing.*
7. Act of entering into a new relationship, as at school or in a trade; hence, some fee or entertainment exacted from a newcomer into such relationship; as, he had to pay (or pay for) his *footing* with a box of cigars.
8. **a** The straight edge of lace by which it is sewed to another fabric. **b** A narrow unfigured lace netting such as is often sewed to the straight edge of pattern lace.
9. The finer refuse part of whale blubber, not wholly freed of oil.
10. A piece of wood inserted into an arrow shaft and projecting into the pile.
11. Act of adding up a column of figures; the amount or sum total of such a column.
12. *Archery.* Material for a foot; hence, a foot.
13. *Arch.* An enlargement at the lower end of a wall, pier, or column, to distribute the load.
footing ale. Drink or money for drink exacted as footing. See FOOTING, 7.
footing beam. The tie beam of a roof.
foot'ing·ly, *adv.* Trippingly; featly; — said of dancing. *R.*
foot'ings (fo͝ot'ĭngz), *n. pl.* = FOOT, 7 b.
footing stone. *Arch.* Any stone for the footing of a wall; esp., a broad flat stone for the base or lowest course of a wall.
footiron. **a** The step of a carriage. **b** *Obs.* A fetter. **c** An iron arranged to protect the shoe of one digging.
foot jaw. = MAXILLIPED.

cher′vo·nets (chĕr′vô·nĕts), *n.*; *pl.* CHERVONTSI (chĕr·vônt′-sē). Also **cher′vo·netz.** [Russ., lit. ducat.] A gold monetary unit of the Union of Socialist Soviet Republics, established by a decree of 1922, equivalent to ten rubles, and worth about $5.15. See COIN, *Table.*

Ches′a·peake (chĕs′ȧ·pēk), *n.* [From *Chesapeake* Bay.] **1.** *Geol.* The Chesapeake formation. **2.** See SHIP, *Table.*

Ches′a·peake, *adj.* Denoting a Miocene formation on the Atlantic coast of North America; — called also *Yorktown.* See GEOLOGY, *Chart.*

Chesapeake Bay dog. A large hunting dog, of a breed originating in Maryland in early colonial days, used for retrieving birds.

Chesapeake canoe. *Naut.* A fishing and working craft of Chesapeake Bay, from 20 to 40 feet long. It is rigged with one or two masts and leg-of-mutton sails spread by means of sprits, and sometimes has a jib of peculiar shape. It was originally built from a single log, and later from three, five, or seven logs bolted together. Cf. BUCKEYE.

Chesh′ire (chĕsh′ĭr; -ẽr), *n.* [From *Cheshire,* England.] A breed of medium-sized white swine.

Chesh′ire cat (chĕsh′ẽr). **1.** Literally, a cat of Cheshire County, England; — used in the phrase *to grin like a Cheshire cat.* See GRIN LIKE A CHESHIRE CAT. **2.** In *Alice's Adventures in Wonderland,* a grinning cat which gives Alice advice and then disappears, the first time suddenly, but, after Alice's remonstrance, by almost imperceptible gradations, the grin vanishing last of all.

Chesh′ire cheese (chĕsh′ẽr). **1.** A kind of hard cheese made chiefly in the county of Cheshire, England. **2.** [*cap.*] A famous inn on Wine Office Court, Fleet Street, London, where Dr. Johnson is said to have often dined.

che′son, che′soun (chā′zŏn; chā·zōōn′), *n.* [OF. *acheison, achaison.*] *Obs.* **a** Occasion; cause. **b** Cause for complaint; complaint; also, objection.

chess (chĕs), *n.* [ME. *ches,* fr. OF. *esches* (acc. pl. of *eschec*), F. *échecs,* prop. pl. of *échec* check. See 2d CHECK.] **1.** A game of pure skill played on a chessboard with chessmen, the players moving alternately until the king of one is so attacked that he cannot escape. Chess is a game of ancient and obscure origin. It was probably imported into Europe in medieval times from the Orient. In its European form it is played upon a board (**chessboard**) like that of draughts, or checkers. In English notation the *ranks* are numbered first to eighth by each player from his own side of the board, and the *files* are named from the piece standing on the first square at the beginning of the game: the king's file, the queen's file, king's knight's file, queen's rook's file, etc. Thus the square marked (x) is white's king's bishop's fourth (KB4); but is black's king's bishop's fifth (KB5). In German notation the ranks are numbered always from white's side, and the files are named *a b c d e f g h* from white's left to right. The *men* used in playing ordinary chess (**chessmen**; *sing.* **chessman**) are two corresponding but differently colored sets of eight *pieces* and eight *pawns* each, usually called the *white* and the *black* respectively. At the beginning of the game the eight pieces are placed as follows: The two rooks or castles are placed at the corners of the chessboard next to the player (the one at the right on a square of light color). Next to these, on the first rank, are placed two knights; next to these, two bishops; the center being occupied by the king (K) and queen (Q) with the queen on her color. A bishop (B), knight (Kt), or rook (R) is designated as "king's" or "queen's" according as it is nearer the king or the queen (*abbr.* KKt, "king's knight"; QKt, "queen's knight," etc.). The eight pawns (P) occupy the second rank, and are designated by the name of the piece behind them; as, "king's knight's pawn" (KKtP). For the moves of chessmen see BISHOP, KING, KNIGHT, PAWN, QUEEN, ROOK. Chess moves are indicated in **chess notation** as follows: — moves to; × takes; *ch* check. See also CASTLE. Games of chess are usually begun by a conventional series of moves called a **chess opening,** all other openings being called "irregular." Except in certain games at odds, white has the first move. Notable chess openings are:

Chessboard, showing for Black the conventional symbols for the Men, and for White the corresponding abbreviations.

Alekhine's defense: P–K4, Kt–KB3; P–K5, Kt–Q4; P–QB4, Kt–Kt3; P–Q4, P–Q3.
Caro-Kann defense: P–K4, P–QB3; (usually) P–Q4, P–Q4.
Evans gambit: P–K4, P–K4; Kt–KB3, Kt–QB3; B–B4, B–B4; P–QKt4, B x KtP.
Falkbeer counter gambit: P–K4, P–K4; P–KB4, P–Q4; KP x P, P–K5.
French defense: P–K4, P–K3; P–Q4, P–Q4.
Giuoco piano: P–K4, P–K4; Kt–KB3, Kt–QB3; B–B4, B–B4.
Queen's gambit: P–Q4, P–Q4; P–QB4, P x P.
Queen's Pawn game: P–Q4, P–Q4.
Réti's opening: Kt–KB3, P–Q4 or Kt–KB3.
Ruy Lopez: P–K4, P–K4; Kt–KB3, Kt–QB3; B–Kt5.
Sicilian defense: P–K4, P–QB4.

Openings less frequent in tournaments and matches are:

Bird's opening: P–KB4.
Center gambit: P–K4, P–K4; P–Q4, P x P, Q x P, Kt–QB3.
Center counter gambit: P–K4, P–Q4; P x P, Kt–KB3.
Danish gambit: P–K4, P–K4, P–Q4, P x P; P–QB3, P x P.
English opening: P–QB4, P–K3 or P–QB4; P–K4.
Four Knights' game: P–K4, P–K4, Kt–KB3, Kt–QB3, Kt–B3, Kt–B3.
King's gambit: P–K4, P–K4; P–KB4, P x P (declined B–B4).
Max Lange's attack: a giuoco piano followed by Castles, Kt–B3; P–Q4.
Muzio gambit: P–K4, P–K4; P–KB4, P x P; Kt–KB3, P–KKt4 B–B4, P–Kt5; Castles.
Petroff's defense: P–K4, P–K4; Kt–KB3, Kt–KB3.
Philidor's defense: P–K4, P–K4, Kt–KB3, P–Q3.
Scotch gambit: P–K4, P–K4; Kt–KB3, Kt–QB3, P–Q4, P x P.
Vienna: P–K4, P–K4, Kt–QB3

2. The chessmen or chessboard. *Obs.* **3** Loosely, used to translate Gr *astragaloi,* dice, and *pessoi,* a game like checkers. *Pope.*

chess (chĕs), *n.* [Cf. F. *châssis* a framework of carpentry.] **1.** A tier; layer; of a house, a story; also, a row, usually one of a number, as of grain in the ear. *Obs. exc. Dial. Eng.* **2.** [*pl.* CHESS or CHESSES (chĕs′ĕz; -ĭz; 119).] *Mil.* One of the boards which, when placed transversely on the balk of a pontoon bridge, form the flooring of the bridge.

chess (chĕs), *n.* [Cf. CHEAT in this sense.] *U. S.* **a** A kind of brome grass (*Bromus secalinus*) troublesome in wheat fields, and often erroneously regarded as degenerate or changed wheat. Also, any of several other species of *Bromus,* as *B. kalmii, B. racemosus, B. arvensis.* **b** The darnel *Lolium temulentum.*

Chess (*Bromus secalinus*).

chess apple. The fruit of the wild service; also, the tree itself.

ches′sart (chĕs′ẽrt), *n.* A cheese vat. *Scot.*

chess′board′ (chĕs′bōrd′; 181), *n.* The board used in the game of chess; hence, the scene of any contest like chess in requiring subtle scheming and cautious manipulation; as, the political *chessboard.* See CHESS.

ches′sel (chĕs′'l), *n.* [*cheese* + *well.*] A cheese vat.

chess′er (chĕs′ẽr), *n.* A chess player.

chess′ist (-ĭst), *n.* A chess player.

chess′man (-măn), *n.*; *pl.* -MEN (-mĕn). See CHESS.

ches′ner (chĕs′nẽr), *n.* A chess player. *Obs.*

ches′som (chĕs′ŭm), *adj.* [Cf. CHESIL.] Loose, friable, free from stones, etc.; — said of earth, mold, etc. *Obs.*

chess rook. *Her.* A representation of the rook in chess.

chess′tree′ (chĕs′trē′), *n.* [Cf. F. *châssis* a framework of carpentry.] *Naut.* Formerly, a piece of wood with a sheave or sheaves bolted in the topsides of a vessel, through which a tack or sheet is rove.

ches′sy·lite (chĕs′ĭ·līt), *n., or* **Ches′sy cop′per** (chĕs′ĭ; shĕ′sē′). *Mineral.* The mineral azurite, found in fine crystallizations at Chessy, near Lyon, France.

chessylite blue. Azurite blue.

chest (chĕst), *n.* [ME. *chest, chist,* fr. AS. *cest, cist, cyst,* fr. L. *cista,* fr. Gr. *kistē*; prob. akin to OIr. *ainchis* wicker bread basket. Cf. CIST, CISTERN, KIST chest.] **1.** A box, as for the safekeeping of valuables; a coffer; a large box of wood, or other material, with a lid; as, a sailor's *chest*; a tool *chest.* Hence, **chest lid, chest lock, chest maker.** **2.** A coffin. *Now Dial.* **3.** A basket made of rushes. *Obs.* **4.** The place for the keeping of the money of a public institution; treasury; coffer; also, the fund of money itself.

To recruit his military *chest* by . . . plunder. *C. Merivale.*

5. **a** The part of the body enclosed by the ribs and breastbone; the thorax (see THORAX, *Illust.*). Hence, **chest expander, chest protector, chest wall.** **b** *Colloq.* = BOSOM, 2; — now esp. in *on* or *off* (one's) *chest,* referring to a burden of thought or emotion. **6.** The breast, considered as the seat of the emotions. **7.** Of an arrow, the breast. **8.** *Com.* A case in which tea, opium, etc., are transported; hence, the quantity which such a case contains. **9.** *Mach.* A tight receptacle or box, usually for holding gas, steam, liquids, etc.; as, the steam *chest* of an engine. **10.** *Paper Mfg.* A special vessel in which pulp is bleached. — **get** (something) **off one's chest.** To relieve oneself by giving expression to. *Slang.*

chest (chĕst), *v. t.* **1.** To place in a coffin. *Now Chiefly Dial.* **2.** To deposit or enclose in a chest; hoard; stow away. **3.** To meet or strike with the chest; — said of a horse.

chest, *n.* [AS. *cēast.*] Strife; contention; controversy. *Obs.*

-chest′ed (-chĕs′tĕd; -tĭd; 119). A combining form of *chested,* denoting *having* (such) *a chest,* as in:

bare-chested	flat-chested	hollow-chested
broad-chested	full-chested	narrow-chested
deep-chested	hairy-chested	well-chested

chest′ed ar′row. An arrow thickest at the breast, always tapering toward the point and usually toward the nock.

ches′ter (chĕs′tẽr), *n.* [AS. *ceaster,* fr. L. *castra* camp.] A walled town; a city, esp. one founded by the Romans in Britain. *Obs.* except in history and in place names; as, Man*chester*; Lan*caster*; Wor*cester.*

Ches′ter (chĕs′tẽr), *adj.* & *n.* *Geol.* = KASKASKIA.

ches′ter, *n.* = CHESTERFIELD, 1.

ches′ter·field′ (-fēld′), *n.* **1.** A single-breasted overcoat reaching to the knees; — so called from an Earl of Chesterfield of the 19th century. **2.** A kind of large overstuffed sofa.

Ches′ter·field′i·an (-fēl′dĭ·ăn), *adj.* Of, pertaining to, or characteristic of, the fourth Earl of Chesterfield (Philip Dormer Stanhope, 1694–1773), distinguished for his elegant manners and for his *Letters* to his son. These deal with manners and conduct, reflecting the morality of the age.

ches′ter·lite (chĕs′tẽr·līt), *n.* A variety of orthoclase, substantially pure microcline, found in Chester County, Pa.

Chester play. One of a series (the **Chester cycle**) of 24 mystery plays performed by the guilds of Chester, from the 13th to the 16th century, at Whitsuntide. See MYSTERY.

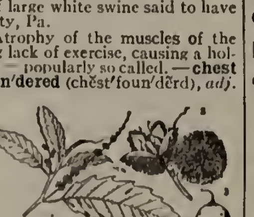
Chester White. A breed of large white swine said to have originated in Chester County, Pa.

chest founder. *Veter.* Atrophy of the muscles of the chest of the horse from long lack of exercise, causing a hollow appearance of the chest; — popularly so called. — **chest foundering.** — **chest′-foun′dered** (chĕst′foun′dẽrd), *adj.*

chest measurer. A form of stethometer.

chest note. A chest tone.

chest′nut (chĕs′nŭt; chĕst′nŭt; -nŭt), *n.* [From *chesten nut,* fr. ME. *chesten, chesteine, chasteine,* fr. OF. *chastaigne* (F *châtaigne*), fr. L. *castanea,* fr. Gr. *kastanea, kastanon,* a chestnut, prob. fr. Armen. *kaskeni* a chestnut tree. AS. had *cistenbēam* chestnut tree, by earlier borrowing. Cf. CASTANET.] **1.** The sweet edible nut produced by any species of *Castanea* (which see); also, the tree bearing this nut; esp., the European chestnut *C. sativa* or the closely related American chestnut *C. dentata,* now nearly extinct because of the chestnut blight. The Japanese chestnut (*C. crenata*) differs in having larger fruit. **2.** The light coarse-grained wood of the chestnut tree, useful for railroad ties, cabinetwork, house trimming, etc. **3.** A brown color, red-yellow in hue, of low saturation and low brilliance. Cf. COLOR. **4.** The horse chestnut. *Eng.* **5.** The breadfruit *Artocarpus communis. Puerto Rico.* **6.** (Usually with an attributive.) Any of numerous trees having edible nuts, as the Cape *chestnut* (*Calodendrum capense*), Moreton Bay *chestnut* (*Castanospermum australe*). **7.** One of the small round or oval horny callosities on the inner sides of the forelegs and hind legs of the horse, present on the forelegs only of asses and zebras. **8.** An old joke or retold story. *Colloq.* **9.** **a** A chestnut horse. **b** = CHESTNUT COAL.


Chestnut (*Castanea dentata*): 1 Leaves and Aments; 2 Burs; 3 Nut.

☞ COMBINATIONS and PHRASES are:

chestnut-backed	chestnut-colored	chestnut roaster
chestnut-bellied	chestnut-crested	chestnut-sided
chestnut-brown, *adj.*	chestnut-crowned	chestnut stuffing
chestnut bud	chestnut flour	chestnut tree
chestnut-collared	chestnut-red, *adj.*	chestnut-winged

chest′nut, *adj.* **a** Of, pertaining to, or like chestnut; also, made of chestnut wood. **b** Of the color chestnut.

chest′nut, *v. i.* To gather or seek chestnuts; — usually in the form *chestnutting*; as, to go *chestnutting.*

chest′nut–backed′ chick′a·dee′. See CHICKADEE.

chestnut bean. The chick-pea.

chestnut blight. *Plant Pathol.* A very destructive disease which has practically exterminated the American chestnut. It is caused by the fungus *Endothia parasitica,* introduced from China, and attacks the bark, producing lesions that ultimately girdle and kill the affected part. Called also **chest′nut–bark′ dis·ease′.**

chestnut borer. Any insect which bores in the wood of the chestnut tree; specif., the *two-lined chestnut borer* (*Agrilus bilineatus*).

chestnut brown. The color chestnut.

chestnut coal. A size of anthracite coal. See COAL.

chest′nut–col′lared long′spur′. See LONGSPUR.

chestnut extract. An extract of chestnut wood, esp. from the European chestnut (*Castanea sativa*), used in dyeing silk black. It contains 26 per cent or more of tannin.

chestnut oak. Any oak having leaves resembling those of the chestnut; specif.: **a** In Europe, *Quercus sessiliflora.* **b** In the eastern United States, *Q. prinus* and *Q. muhlenbergii,* both valuable timber trees. *Q. prinoides* is sometimes called *scrub chestnut oak.* **c** = TANBARK OAK.

chest′nut–roan′ (66), *adj.* & *n.* See ROAN, *adj.*

chestnut sedge. A sedge (*Cyperus erythrorhizos*) with chestnut-brown spikelets, an important hay crop.

chest′nut–sid′ed war′bler. A common warbler (*Dendroica pensylvanica*) of eastern North America.

chestnut timber worm. See TIMBER WORM.

chestnut tongue. = BEEFSTEAK FUNGUS.

chestnut weevil. A brownish beetle (*Balaninus rectus*), family Curculionidae, having a very long thin black snout.

chest of drawers. A case or movable frame containing drawers.

chest of viols. See VIOL.

chest′–on–chest′, *n.* A double chest of drawers, the lower section with short feet, the upper slightly smaller than the lower.

Chest-on-chest.

chest register. The lower register of the voice.

chest tone. A tone in the chest register.

chest voice. The voice of the chest register.

chest weight. A weight, usually one of a pair of weights, operated by a cord-and-pulley device, for exercising the muscles of the chest, back, etc.

chest′y (chĕs′tĭ), *adj.*; CHEST′I·ER (-tĭ·ẽr); -I·EST. **1.** Self-confident or self-important in demeanor. *Slang.* **2.** Having chest tones. *Colloq.* — **chest′i·ly** (-tĭ·lĭ), *adv.* — **chest′i·ness,** *n.*

cheth (kāth), *n.* [Heb. *ḥēth,* lit., barrier.] The eighth letter of the Hebrew alphabet (ח), a strong guttural continuant resembling the Ach-laut. It is used also as a numeral with the value 8.

‖**ché′tif′** (shā′tēf′), *adj. masc.,* ‖**ché′tive′** (-tēv′), *fem.* [F. See CAITIFF.] Mean; sordid; paltry; miserable. Cf. CAITIFF.

chet′ty (chĕt′ĭ), *n.* [Malayalam *cetti,* Tamil *šeṭṭi.*] A caste of Tamil merchants in Southern India and Ceylon.

chev′a·chie (chĕv′ȧ·chē), *n.* [OF. *chevauchie, chevauchiée,* of the same origin as E. *cavalcade.*] A riding; a cavalry expedition or raid. *Obs.*

che′vage (chē′vĭj), *n.* [OF., fr. *chief* head. See CHIEF.] A capitation tax or tribute. *Obs. exc. Hist.*

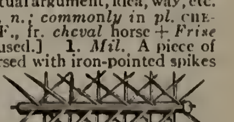
‖**che·val′** (shĕ·văl′), *n.*; *pl.* CHEVAUX (-vō′). [F. See CAVALCADE.] **1.** A horse; hence, a support or frame. **2.** See HORSEPOWER.

che·val′ (shĕ·văl′), *n.*; *pl.* CHEVALS (-vălz′). [Cf. F. *chevalier* a kind of waterfowl.] The canvasback. *Local, U. S.*

Che·val′ Blanc′ (shĕ·văl′ blän′). [F.] A Château (claret) wine, a fine red Graves wine of the St. Emilion district.

‖**che·val′ de ba·ta′ille** (shĕ·văl′ dē bȧ′tä′y′). [F.] A war horse; charger; favorite or habitual argument, idea, way, etc.

che·val′–de–frise′ (-dē·frēz′), *n.*; *commonly in pl.* CHEVAUX-DE-FRISE (shĕ·vō′). [F., fr. *cheval* horse + *Frise* Friesland, where it was first used.] **1.** *Mil.* A piece of timber or an iron barrel traversed with iron-pointed spikes or spears, or pointed poles, five or six feet long, used to defend a passage, stop a breach, or impede cavalry, etc. It is often strung with barbed wire to increase its effectiveness. **2.** *pl.* A name given to the jagged edges of women's dresses, caps, etc., in 18th-century costumes. *Obs.* **3.** A protecting line of sharp points, as of spikes or nails along the top of a fence or wall.


One form of Cheval-de-frise.

☞ *Chevaux-de-frise* is sometimes used collectively.

ches ✝ CHEESE.
Ches′a·lon (kĕs′ȧ·lŏn). *Bib.*
che sar′a′ sar′a′ (kā sä′rä′ sä′rä′). [It.] What will be, will be.
chee′boll, -bow, *n. Obs.* = CIBOL.
chese ✝ CHEESE, CHOOSE.
Che′sed (kē′sĕd; kĕ′sĕd). *Bib.*
ches′i·ble. ✝ CHASUBLE.
ches′il (chĕz′ĭl; chĭz′), *n.* [AS. *ceosel* gravel, sand.] Gravel, shingle. *Obs. exc. Dial.*
cheail ✝ CHISEL, a tool.
Che′sil (kē′sĭl; kĕ′sĭl). *Bib.*
ches′nut. Var. of CHESTNUT.
chess′boile. ✝ CHEESEBOLL.
chess′dom, *n.* See -DOM.
ches′sil. Var. of CHESIL, gravel.
ches′soun. ✝ CHESON.
Ches′sy cat (chĕs′ĭ). Corrupt. of CHESHIRE CAT, 1. [DEEP.]
chest′-deep′ (66), *adj.* & *adv.* See
cheste. ✝ CHEAS, CHEST.
chesteine, -ten, *n.* [See CHESTNUT.] Chestnut. *Obs.*
chest′ful, *n.* See -FUL.
chest′nut·ty, *adj.* See -Y.
ches′ton. ✝ CHESTEINE. [*Bib.*]
Che·sul′loth (kē·sŭl′ŏth; -ŏth).
Ches′van (kĕsh′văn). Var. of HESHVAN.
che′tah. Var. of CHEETAH.
Che·thi′im (kē·thī′ĭm; kĕth′ĭ·ĭm). *Bib.*
‖ché′tive′, *adj., fem.* of CHÉTIF.
che′to·pod. Var. of CHAETOPOD.
Chet·ti′im (kĕ·tī′ĭm; kĕt′ĭ·). *Bib.*
chet′tik (chĕt′ĭk), *n.* = I PAK, 1 b.
chet′ver·ik′ (chĕt′vyĕ·rĭk′), *n.* [Russ.] See MEASURE, *Table.*
chet′vert (chĕt′vyĕrt), *n.* [Russ. *chetvert′.*] See MEASURE, *Table.*
cheung (chŭng). Var. of 3d CHANG.

Cre'us (krē'ŭs), *n.* [Gr. *Kreios.*] *Gr. Myth.* A Titan.

Cre·ū'sa (krē·ū'sȧ), *n.* [L., fr. Gr. *Kreousa.*] *Gr. Myth.* **a** Aeneas's wife. **b** See MEDEA. **c** See ION.

Creu'sot' gun (krû'zō'). *Ordn.* Any cannon made at Le Creusot in France, the location of the steel and ordnance works of Schneider & Co.

cre·val'lé (krē·väl'ā), *n.* [Cf. CAVALLY.] Any of certain cavallas; esp., the yellow mackerels *Paratractus crysos* and *Caranx hippos.*

cre·vasse' (krē·vȧs'), *n.* [F. See CREVICE.] A deep crevice or fissure, as in an embankment; esp.: **a** A fissure in the mass of a glacier or snow field. **b** *U.S.* A breach in the levee of a river, as on the lower Mississippi.

cre·vasse', *v. t.*; CRE·VASSED' (-văst'); CRE·VASS'ING. [F. *crevasser.*] To open or fissure with crevasses.

‖**crève'–cœur'** (krâv'kûr'), *n.* [F.] **a** Heartbreak; deep sorrow or grief. **b** In the 17th century, a lovelock worn at the nape of the neck.

Creve'coeur', *n.* A black, crested domestic fowl of a French breed originating in the Commune of Crève-cœur.

‖**cre·vette'** (krē·vĕt'), *n.* [F.] **1.** A shrimp.
2. The color shrimp pink.

crev'ice (krĕv'ĭs), *n.* [ME. *crevice, crevace,* fr. OF. *crevace* (F. *crevasse*), fr. *crever* to break, burst, fr. L. *crepare* to crack, break. See CREPITATE; cf. CREVASSE.] A narrow opening resulting from a split, crack, or the like; a cleft; a fissure; as, a *crevice* in a wall.

crev'ice, *v. t.* To make crevices in; to crack.

crev'iced (-ĭst), *adj.* Having a crevice or crevices.

crew (krōō), *past part.* of CROW (sense 1).

crew (krōō; 242), *n.* [OF. *creüe* growth, increase, recruit, fr. *creistre* to grow. See ACCRUE, CRESCENT.] **1. a** *Obs. Mil.* A reinforcement or additional force; a detail of men; a band; company. **b** *Archaic.* Any band or force of armed men. "That fair *crew* of knights." *Spenser.*
2. A company of people, animals, or things associated together; an assemblage; a throng; a retinue.
Mirth, admit me of thy *crew.* *Milton.*
3. Specif.: **a** Any small body of men regarded as associated, as by common occupation or traits; often, derogatorily, set; gang; herd; mob. "A *crew* of wretched souls." *Shak.* **b** A company or squad of laborers or workmen employed on some piece of work or under one foreman, as in lumbering or quarrying; a gang. **c** The body or number of workmen required to man a machine, apparatus, etc.
4. The company of seamen who man a ship, vessel or boat; the whole company belonging to a vessel or a boat. The word *crew* is legally construed to include the officers and master unless the context shows to the contrary.
5. *Naut. & Nav.* A small body or gang of men who work under the direction of some petty officer or who are assigned to some particular duty; as, the gunner's *crew.*
6. *Rowing.* The body of men, oarsmen and steersman, manning or trained to man a racing shell; as, a college *crew.*
Syn. — See COMPANY.

crew, crue (krōō; krū), *n.* [Gael. *crō,* W. *creu, craw.* See ROOF.] *Scot.* **1.** A pen or fold for cattle, swine, sheep, etc.
2. A hut; hovel or cabin.

crew (krū), *n.* The Manx shearwater. *Local, Eng.*

crewe (krū), *n.* [OF. *crue, cruie.*] A pot. *Obs. Spenser.*

crew'el (krōō'ĕl; -ĭl), *n.* [Origin uncert.] **1.** Worsted yarn, slackly twisted, used for embroidery and fancy work, formerly also for fringes, laces, hosiery, etc.
2. Short for CREWELWORK.

crew'el, *v. t.* To work with crewel; adorn with crewelwork.

crew'el·ist (-ĭst), *n.* A worker in crewels.

crew'el·ler·y (krōō'ĕl·ĕr·ĭ; -ĕl·rĭ), *n.* Crewelwork.

crewel needle. A long-eyed sharp needle. See 4th SHARP, 6.

crewel stitch. *Embroidery.* A stitch making a line of ropelike appearance; — called also *stem stitch.*

crew'el·work' (krōō'ĕl·wûrk'), *n.* Embroidery in crewels, commonly done upon some plain material, such as linen.

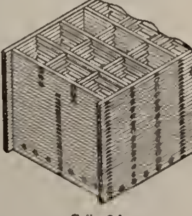
crew'er (-ẽr), *n.* A machine that curves tongues for spring clips and harness buckles; also, the workman who tends it.

crew list. A document prepared by the master of a vessel, showing the names, descriptions, and residence, of the members of the crew. Cf. SHIPPING ARTICLES.

crew'man (krōō'măn), *n.*; *pl.* -MEN (-mĕn). A gang laborer, as at a dock. *Eng.*

Crex (krĕks), *n.* [NL., fr. Gr. *krex,* a sort of long-legged bird.] *Zool.* The genus of which the corn crake is the type.

crib (krĭb), *n.* [AS. *cribb;* akin to OS. *kribbja,* D. *krib, kribbe,* Dan. *krybbe,* G. *krippe,* and to MHG. *krebe* basket. Cf. CRATCH.] **1. a** A manger for feeding animals.
The steer and lion at one *crib* shall meet. *Pope.*
b Specif., the manger in which the infant Jesus was laid. **c** Hence, a crèche, or a representation of this manger and the adoration scene.
2. A stall for oxen or other cattle.
3. A hut or hovel; also, a small narrow room.
Why rather, Sleep, liest thou in smoky *cribs,* . . .
Than in the perfumed chambers of the great? *Shak.*
4. *Thieves' Cant.* **a** A house, store, shop, or the like; as, to "crack a *crib.*" **b** A brothel; a dive.
5. An osier or wickerwork basket; a crate or bin.
6. A box or bin or a building for storing grain, salt, etc., usually of open or slat construction; as, a corn*crib.*
7. A small bedstead with high enclosing sides, for a child.
8. Any of various devices of open or cratelike construction; specif.: **a** A heavy framework for supporting, strengthening, etc., as under a building that is being moved, for a foundation, for supporting a roof, or for lining a shaft. **b** A frame of logs or beams to be filled with stones, rubble, or the like, and sunk as a foundation or retaining wall in the building of docks, piers, dams, etc. **c** A wooden framework with upright rods, used as a drying rack. **d** A weir.


Crib, 8 b.

9. a A small theft; anything purloined; a plagiarism; hence, a translation or key, etc., to aid a student in preparing or reciting his lessons; a pony; esp., *School Slang,* some contrivance of this sort, as a roll of paper containing information, for dishonest use in examination or recitation. **b** Act of cribbing or purloining.
10. *Archery.* A low box topped with netting or perforated board in which to stand arrows.
11. [*cap.*] *Astron.* The star cluster Praesepe; the Cratch.
12. *Card Playing.* **a** In cribbage, the cards discarded for the dealer to use in scoring. **b** *Colloq.* Cribbage.
13. *Logging, U.S. & Can.* **a** A raft or boom of logs. **b** A wall or abutment built to prevent stoppage or damage during a river log drive. **c** A barrier for reducing the flow of water downstream but extending only part way from shore and thence upstream so as to form a place for storing logs, etc.
14. *Railroads.* The ballast between two adjacent ties.

crib (krĭb), *v.*; CRIBBED (krĭbd); CRIB'BING. *Transitive:* **1.** To confine in a narrow habitation; cage; hence, to cramp. "Now I am cabin'd, *cribbed,* confined." *Shak.*
2. To provide with, or put in, a crib or cribs; esp., *Civ. Engin.,* to support or line with a crib, or timber framework.
3. To surround (floating logs) with a boom and draw on to a raft; also, to tow (logs) by steam. *U.S. & Canada.*
4. To pilfer or purloin; to steal; hence, to appropriate, as a passage or idea, and use as one's own; to plagiarize; as, to *crib* a line from Milton. *Colloq.*
—, *Intransitive:* **1.** To lie as in a crib. *Obs.*
2. To steal; purloin; plagiarize; esp., *School Slang,* to use a crib, as in preparing a lesson.
Call in law when a neighbor breaks your fence,
Cribs from your field. *R. Browning.*
3. = CRIB-BITE.

crib'bage (krĭb'ĭj), *n.* [From CRIB, *v. t.,* 4.] **1.** A game of cards, played by two, three, or four persons, five or, now more commonly, six cards being dealt to each, the chief object of which is to form various counting combinations. The dealer has an extra set of cards called the *crib,* composed of discards from the hands of the players, and counted independently of the hands played. Points are usually scored by moving pegs on a **cribbage board,** a strip of wood, or other material, having 61 holes for each player. The player who first counts or "pegs" 61 holes or sometimes 121 holes, wins.
2. Act of cribbing; something cribbed; plagiarism. *Colloq.*

crib'bage, *v. t. & i.* To crib; steal. *Colloq., Eng.*

crib'ber (-ẽr), *n.* One who or that which cribs; specif., a crib strap.

crib'bing (-ĭng), *n.* **1.** The material used for a crib, esp. for the sides of a corncrib or for the lining of a shaft.
2. Act of one who cribs; specif., crib biting.

crib'–bite', *v. i.* *Veter.* To exhibit the vice of crib biting.

crib biting. *Veter.* A vice of some animals, esp. horses, in which they make peculiar movements with the head and at intervals grasp the manger or other object with the incisor teeth, arch the neck and swallow large quantities of air, in marked cases resulting in colic and indigestion; — called also *cribbing.* — **crib'–bit'er** (-bīt'ẽr), *n.*

crib'ble (krĭb''l), *n.* [F. *crible,* fr. (assumed) VL. *criblum* sieve, for L. *cribrum.* See CRIBELLUM.] A sieve; also, *Obs.,* coarse flour or meal.

crib'ble, *v. t.* [Cf. F. *cribler.*] **1.** To sift. *Obs.*
2. To engrave in the criblé manner. See CRIBLÉ, *adj.*

cri·bel'lum (krĭ·bĕl'ŭm), *n.*; *pl.* -LA (-ȧ). [LL., a small sieve, dim. of *cribrum* sieve; akin to L. *crinis* hair. See CRINITE.] *Zool.* **a** A special spinning organ with numerous fine perforations, situated in front of the ordinary spinning organs, and found only in certain families of spiders. **b** In insects, a chitinous plate with perforations which constitute the openings of minute ducts leading from certain glands.

‖**cri'blé'** (krē'blā'), *adj.* [F. See CRIBBLE, *n.*] Designating a kind or manner of engraving (*la manière criblée*), orig. used in the 15th century, in which round holes in the block or plate produce white spots in the print.

cri'bo (krē'bō), *n.* [Origin unknown.] A large, harmless colubrid snake (*Drymarchon corais corais*) of the West Indies and tropical South America.

crib'ral (krĭb'răl), *adj.* Of or pertaining to a sieve or sievelike structure.

crib'rate (-rāt), *v. t.* [L. *cribratus,* past part. of *cribrare.*] To sift. *Obs.*

crib'rate (-rāt), *adj.* Sievelike. — **crib'rate·ly,** *adv.*

cri·bra'tion (krĭ·brā'shŭn), *n.* Act or process of sifting, esp., formerly, of sifting drugs.

crib'ri·form (krĭb'rĭ·fôrm), *adj.* [L. *cribrum* sieve + *-form.* See CRIBELLUM.] Sievelike.

cribriform area. = AREA CRIBROSA.

cribriform cell. *Bot.* = SIEVE CELL.

cribriform fascia. *Anat.* The fascia covering the saphenous opening in the fascia lata of the thigh; — from the numerous perforations for blood and lymph vessels.

cribriform plate. *Anat.* The horizontal plate of the ethmoid bone, perforated with numerous foramina for the passage of the olfactory nerve filaments from the nasal cavity.

cribriform tissue. *Bot.* = SIEVE TISSUE.

crib'rose (krĭb'rōs), *adj.* [L. *cribrum* sieve.] Cribriform.

crib strap. A strap fitted closely about the throat of a horse to prevent crib biting or wind sucking.

crib'work' (krĭb'wûrk'), *n.* Framework formed by logs arranged as in a crib; structure made with cribs; also, a crib.

cric (krĭk), *n.* [Prob. fr. F. *cric* a jackscrew.] The ring which turns inward and condenses the flame of a lamp.

Cri·cet'i·dae (krĭ·sĕt'ĭ·dē), *n.* [NL. See CRICETUS; -IDAE.] *Zool.* A family of rodents, typified by the hamsters, mostly small and mouselike or ratlike, and having three molar teeth on each side whose cusps in the upper series are arranged in transverse pairs instead of in threes as in Muridae.

Cri·ce'tus (krĭ·sē'tŭs), *n.* [NL., of Slav. origin; cf. Czech & Pol. *křeček* hamster.] *Zool.* The genus of rodents comprising the hamsters. — **cric'e·tine** (krĭs'ē·tĭn; -tīn), *adj. & n.*

crick (krĭk), *n.* [Origin uncert.] **1.** A painful spasmodic affection of the muscles of some part of the body, as of the neck or back, rendering it difficult to move the part.
2. [Cf. F. *cric.*] A small jackscrew.

crick, *v. t.* To turn or wrench so as to cause a crick.

crick, *n.* A creek. *Now only Dial. Spelling.*

crick, *v. i.* [Cf. CREAK, *v.*] To make a slight abrupt sound like that of a grasshopper. — **crick,** *n.*

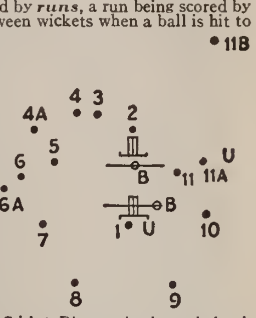
crick, *n.* [Cf. Dan. *krik-and.*] The garganey. *Local, Eng.*

cricke, crike (krĭk), *n.* A species of tick. *Scot.*

crick'et (krĭk'ĕt; -ĭt; 119), *n.* [ME. *criket,* fr. OF. *criquet,* fr. MD. *crikel.* Cf. CREAK.] Any of the saltatorial insects constituting the family Gryllidae, of the order Orthoptera. They are noted for the chirping notes produced by the males by rubbing together specially modified parts of the forewings. The European house or hearth cricket (*Gryllus domesticus*) has been naturalized in parts of America. It lives in human dwellings, often between the bricks of fireplaces. *G. assimilis* is the common large black American species, which also enters houses. See also MOLE CRICKET, TREE CRICKET. The term *cricket* is also applied to other insects, esp. to certain grasshoppers (Locustidae), but usually with a qualifying word; as, *sand* cricket.

European House Cricket.

crick'et, *n.* [OF. *criquet* goal stake in the game of bowls, fr. MD. *cricke* stick, staff (D. *kruk* crutch). See CRUTCH.] **1.** An outdoor game played with bats, ball, wickets, etc., usually between sides of eleven players each. The wickets are ***pitched*** (that is, stuck vertically in the ground) at the centers of the two ***bowling creases,*** lines each 8 feet 8 inches in length and 22 yards apart, from or behind which the ball must be bowled. At each end of the bowling crease is a short limiting line called the ***return crease.*** The position of the batsman is fixed by the ***popping crease,*** a line 4 feet from either bowling crease. A bowler bowls a certain number (usually 6) of consecutive balls constituting an ***over,*** alternating with another bowler at the other end. The score is counted by ***runs,*** a run being scored by the batsmen crossing between wickets when a ball is hit to a safe distance, or when the ball is missed by the wicketkeeper (see BYE, *n.,* 2 a) or by a fielder. The batsman is ***out:*** (1) when his bail is displaced by a fair ball (***bowled***); (2) when the batted ball is caught before it reaches the ground (***caught***); (3) when his bail is displaced while he is out of his crease, that is, when he has not either a foot or his bat on the ground behind his popping crease (being ***stumped*** when he is so put out by the wicketkeeper when attempting to play a bowled ball, or ***run out*** when so put out by a fielder in attempting a run); (4) when his leg intercepts a straight pitched ball so as to prevent it from hitting the wicket (***leg before wicket,*** abbr., *l. b. w.*); (5) when in attempting to play the ball he breaks the wicket with his bat or any part of his person (***hit wicket***); (6) when he violates any of various rules. An innings is finished when all but one of the batsmen are out, the remaining batsman being declared ***not out.*** In ***single wicket*** there is but one batsman, the bowler's position being marked by a stump called the ***bowling stump.*** The game with two batsmen is often called ***double wicket.*** The positions of the players vary according to the nature of the bowling. The players are often called by the names of their positions, as ***point, short slip,*** etc. Varying positions (not shown in Illust.) are: ***long, or deep, field,*** near the boundary behind the bowler; ***silly leg, silly mid-off, silly mid-on; silly point,*** and ***silly slip,*** corresponding to short leg; mid-off, mid-on, point, and first slip, but much closer to the wicket. See BOUNDARY, 2; 3d BREAK, 19 e; WICKET; etc.



Cricket. Diagram showing typical positions of players in the field. 1 Bowler; 2 Wicketkeeper; 3 First Slip; 4 Second Slip; 4 *A* Third Man; 5 Point; 6 Cover-point; 6 *A* Extra Cover; 7 Mid-off; 8 Long-off; 9 Long-on; 10 Mid-on; 11 Short Leg; 11 *A* Square Leg; 11 *B* Long Leg; *B, B* Batsmen; *U, U* Umpires.

2. The fair, sportsmanlike, or honorable manner of procedure; conduct becoming a gentleman and sportsman. *Colloq.*

crick'et (krĭk'ĕt; -ĭt; 119), *v. i.* To play cricket. *Tennyson.*

crick'et, *n.* [Origin uncert.] A low wooden footstool.

crick'et, *n.* *Arch.* A small false roof, or the raising of part of a roof, to throw off water from behind an obstacle.

crick'et–bat' wil'low. A Eurasian tree (*Salix coerulea*) having smooth foliage.

cricket bird. The grasshopper warbler of Europe.

crick'et·er (krĭk'ĕ·tẽr; krĭk'ĭ-), *n.* One who plays cricket.

cricket frog. A small American tree frog (*Acris gryllus*).

crick'et·ing (krĭk'ĕ·tĭng; -ĭ·tĭng), *n.* The playing of cricket.

crick'et·ings (-tĭngz), *n. pl.* Twilled flannels of a superior kind, much used for cricketing costumes.

Cricket on the Hearth, The. A Christmas story (1845) by Dickens. See PLUMMER, CALEB.

cricket teal. [See 5th CRICK.] The garganey. *Local, Eng.*

crick'et·y (krĭk'ĕ·tĭ; -ĭ·tĭ), *adj.* Cricketlike; chirpy.

crick'ey (krĭk'ĭ), **cri'key** (krī'kĭ), *interj.* Probably a softened form of "Christ!" used as a mild oath. *Slang.*

crick'le (krĭk''l), *v. i.* [Cf. CROOKLE, CRINKLE.] To break down; give way. *Dial. Eng.*

cri'co- (krī'kō-). A combining form for *cricoid,* meaning: **a** *The cricoid;* — in nouns, as in **cri·cot'o·my,** surgical cutting of the cricoid. **b** *Cricoid and;* — in adjectives, as in **cri'co·ar'y·te'noid,** cricoid and arytenoid. For the meanings of the following, see the root words:

cricopharyngeal	**cricothyreotomy**	**cricothyroidean**
cricothyreoid	**cricothyroid**	**cricotracheotomy**

cri'coid (krī'koid), *adj.* [Gr. *krikos* ring + *-oid.*] Designating, or pertaining to, a cartilage of the larynx which articulates with the lower cornua of the thyroid cartilage, and with which the arytenoid cartilages articulate; — so called because it is shaped like a signet ring. — *n.* The cricoid cartilage. See LARYNX, *Illust.*

Cri·co'tus (krĭ·kō'tŭs), *n.* [NL., fr. Gr. *krikōtos* ringed.] *Paleontol.* A genus of large stegocephalians, closely allied to *Eryops.*

‖**cri' de coeur'** (krē' dē kûr'). [F.] Literally, a cry from the heart; passionate protest, appeal, or complaint.

cri'er (krī'ẽr), *n.* [ME. *criere,* fr. OF. *criere.* See CRY.] One who cries; specif., an officer who proclaims the orders or directions of a court, a person who gives public notice by loud proclamation, or one who cries goods for sale.

cri'ey (krī'ĭ), *adj.* Prone to cry.

crig (krĭg), *n.* [Ir. *criogān.*] A blow.

crile (krīl; krēl), *n.* [Cf. D. *kriel* dwarf.] A short, deformed person; a dwarf. *Chiefly Scot.*

crime (krīm), *n.* [OF., fr. L. *crimen* accusation, fault, crime, fr. the root of *cernere* to decide judicially. See CERTAIN.] **1.** A charge or accusation; matter of accusation or reproach. *Archaic.*
2. An omission of a duty commanded, or the commission of an act forbidden, by a public law. The term *crime* is hardly a technical term at the common law, but is essentially defined in many of the penal codes in the United States, as in the New York code, as "an act or omission forbidden by law and punishable upon conviction by (1) death; or (2) imprisonment; or (3) fine; or (4) removal from office; or (5) disqualification to hold or enjoy any office of trust, honor, or profit under the state; or (6) other penal discipline." A crime is a violation of a public right and may also involve a violation of the rights of an individual. *Crime* includes all grades of public offenses, which at the common

creut'zer. Var. of KREUTZER.
cre·vas'. Crevasse. *Ref. Sp.*
crev'ist. Creviced. *Ref. Sp.*
crew'els. Var. of CRUELS.
crew'et. Var. of CRUET.
crew'less, *adj.* See -LESS.
crey. ✝CREE. *Dial. Eng.*
creye. Var. of CREE.
criance. ✝CREANCE.
crib'bld. Cribbled. *Ref. Sp.*
Crichton, Admirable. See ADMIRABLE CRICHTON.
crickt. Cricked. *Ref. Sp.*
crick'y. Var. of CRICKEY.
crid'dle (krĭd''l). Dial. Eng. var. of CURDLE.
cried (krīd), *past tense & past part.* of CRY.
cries (krīz), *n., pl.* of CRY.
criesh'y. Var. of CREESHY.
crike. ✝CREEK.
crike. Var. of CRICKE.
cri'key (krī'kĭ). Var. of CRICKEY.
crim'ble. ✝CRUMBLE.

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A Composite Page of Legal Terms and Phrases

ha'be·as (hā'bē·ăs), *n.* [L.] *Law.* A habeas corpus. *Colloq.*

ha'be·as cor'po·ra (hā'bē·ăs kôr'pō·rȧ). [L., (that) you have the bodies.] *Law.* In England: **a** A process of the Common Pleas (abolished in 1852) for compelling attendance of jurymen; in full called ‖**habeas corpora juratorum** (jo͞o'rȧ·tō'rŭm; 242). **b** A process for bringing an ex-sheriff into court to account; — in full called ‖**habeas corpora nuper vicecomitis** (nū'pēr vī'sē·kŏm'ĭ·tĭs).

ha'be·as cor'pus (kôr'pŭs). [L., (that) you have the body.] *Law.* Any of several common-law writs having for their object to bring a party before a court or judge, and issued out of court or (in England) awarded by a judge in vacation; esp., the prerogative writ, more fully called ‖**habeas corpus ad subjiciendum** (ăd sŭb·jĭs'ĭ·ĕn'dŭm), for inquiring into the lawfulness of the restraint of a person who is imprisoned or detained in another's custody. This writ of habeas corpus was not well established as the supreme remedy for enforcing the law of personal liberty until the passage of the Petition of Right (16 Chas. I, c. 10, sec. 8), and the subsequent enactment of the **Habeas Corpus Act** (31 Chas. II, c. 2, 1679). In its widest sense *habeas corpus* includes, besides the foregoing, the writ commonly called *capias*, and certain others, more fully called: ‖**habeas corpus ad faciendum et recipiendum** (fā'shĭ·ĕn'dŭm ĕt rē·sĭp'ĭ·ĕn'dŭm), issued from a superior to an inferior court, requiring a defendant to be produced with the cause of his being taken and held, and hence called also ‖**habeas corpus cum causa** (see also below); ‖**habeas corpus ad prosequendum** (prŏs'ē·kwĕn'dŭm), for removing a prisoner for trial to the jurisdiction in which the offense was committed; ‖**habeas corpus ad respondendum** (rē'spŏn·dĕn'dŭm), for bringing up a prisoner from a lower court to charge him with an offense; ‖**habeas corpus ad satisfaciendum** (săt'ĭs·fā'shĭ·ĕn'dŭm), for bringing up a prisoner from a lower court to charge him with process of execution; ‖**habeas corpus ad testificandum** (tĕs'tĭ·fĭ·kăn'dŭm), for bringing a person in custody into court as a witness; ‖**habeas corpus cum causa** (kŭm kô'zȧ), for removing both the person (corpus) and the record of the proceedings in the case of one in custody upon a judgment for debt, to the King's Bench to remain until he satisfied the judgment (an old English Chancery writ); — applied also to a writ for the removal of a cause (cf. also above).

deceased wife's sister bill. *Eng. Law.* A bill, introduced in most Parliaments from 1835 until its passage in 1907, to legalize the marriage of a man with his deceased wife's sister. Such a marriage was voidable by the ecclesiastical courts, as within the prohibited degrees, until 1835, when it was declared void ab initio by the Marriage, or Lord Lyndhurst's, Act (5 & 6 William IV, c. 54). It had been made valid in all the self-governing colonies before 1907.

con'tract (kŏn'trăkt; *formerly, as in Shakespeare,* con-tract'), *n.* [OF. (F. *contrat*), fr. L. *contractus* a contract, fr. *contrahere* to contract. See CONTRACT, *v.*] **1.** An agreement between two or more persons to do or forbear something, esp. such an agreement that is legally enforceable; a bargain; a compact; a covenant. A legal contract was defined by Blackstone as, "An agreement upon sufficient consideration to do or not to do a particular thing," and this has been the generally accepted definition, either literally or in one paraphrase or another. The law writers have, until recently, generally classified contracts as: ***contract of record***, a conclusive legal obligation incurred through the intervention of some public authority and evidenced by public record, as judgments, recognizances, statutes merchant and staple; ***contract of specialty***, or ***specialty contract***, one depending for its validity upon the formality of its execution, that is, upon its being signed, sealed, and delivered in the form called a *deed*; and ***simple***, or ***parol, contract***, one not depending upon formality of execution for its validity, but upon the existence of a consideration. Contracts of record are now usually classified as *quasi contracts* (which see), as not being properly called contracts. Various classifications of contracts with reference to different principles are made; as: unilateral and bilateral; gratuitous and onerous; real and consensual; executed and executory; aleatory or not, etc. (see these terms).

> The commonwealths [of the United States] are inhibited from passing any law impairing the obligation of *contracts* (Constitution, Art. I, sec. 10, § 1). — *J. W. Burgess.*

In this connection the word *contract* is used in an older sense to mean what is now called a legal transaction or *act-in-the-law*, a much broader term, including grants between private parties and grants, charters, and franchises from the state. Cf. COVENANT; PACT; NUDUM PACTUM; CAUSE, 3; CONSIDERATION, 7; DEED.

2. The act by which two parties enter into the marriage relation; also, the agreement so to do; betrothal.

3. A drawing together; mutual attraction. *Obs.*

4. A writing made by the parties to evidence the terms and conditions of a contract (in sense 1).

5. The department or principles of law having to do with contracts (in sense 1).

6. A season ticket. *Chiefly N. of Eng.*

7. *Card Playing.* **a** In auction or contract bridge, the winning declaration; the number of tricks named by the highest bidder. **b** Short for CONTRACT BRIDGE.

8. *Educ.* An installment of work under the Dalton plan. See DALTON PLAN.

9. *Gram.* A contracted form.

10. *Produce Exchange.* The customary unit of trading; as, one *contract* in wheat is 5,000 bushels. *Colloq.*

Syn. — Arrangement, understanding, convention, pact. — CONTRACT, AGREEMENT, BARGAIN, COMPACT, COVENANT, agreeing in the idea of a mutual arrangement between two parties, are here compared in their more general senses. For their specifically legal usage see defs. AGREEMENT is the most general term; it frequently implies little more than a mutual understanding. CONTRACT applies esp. to such formal agreements, often of a business nature, as are legally binding; BARGAIN, esp. to agreements regarding purchase and sale. A COMPACT is a stronger and more solemn contract, often applying to alliances between states; COVENANT has special reference to religious engagements. Cf. PROMISE.

> According to some versions of the story, a regular *contract* to the above effect was drawn up by a lawyer, and signed and sealed in the presence of witnesses. Others say that Matthew Maule was contented with a private written *agreement*, in which Mr. Pyncheon pledged his honor and integrity to the fulfillment of the terms concluded upon. The gentleman then ordered wine, which he and the carpenter drank together in confirmation of their *bargain*. — *Hawthorne.*

> No State shall, without the consent of the Congress . . . enter into any agreement or *compact* with another State, or with a foreign power. — *Const. of U. S.*

> I do set my bow in the cloud, and it shall be for a token of a *covenant* between me and the earth. — *Gen. ix. 13.*

Legal Terms

On this page, and on the following page, are illustrative examples of legal terms and phrases.

Pronunciations are given. This is a helpful feature as pronunciations are omitted from most of the law dictionaries.

References to various Court Decisions are given in some instances.

Not only are terms given as used in the general practice of law, but also those in special divisions of law, as Real Estate Law, Insurance Law, Civil Law, and International Law.

All terms having special uses or meanings in English Law are fully defined.

war'ran·ty (wŏr'ăn·tĭ), *n.*; *pl.* -TIES (-tĭz). [ONF. *warantie* (F. *garantie*). See WARRANT, *n.*; cf. GUARANTY.] **1.** *Real Estate Law.* Orig., the undertaking or obligation of a feudal lord to defend his vassal tenant in the possession of the land held of him as lord (whether originally received by the lord by commendation or not), or to give the tenant lands of equal value; hence, a real covenant whereby the grantor of an estate of freehold and his heirs were bound to warrant and defend the title, and, in case of eviction by title paramount, to yield other lands of equal value in recompense. As applied to an heir this is called a ***lineal warranty***. A warranty imposed upon an heir of lands which had not, and could not have, descended from the warranting ancestor was a ***collateral warranty***, as where a father granted with warranty lands held by him only by the right of curtesy. Such warranties were annulled by the statute of 4 Anne c. 16. This warranty has long since become obsolete, and its place supplied by personal covenants for title. Among these is the ***covenant of warranty***, often called a *warranty* simply, which runs with the land, and is in the nature of a real covenant, breach of which gives a claim for damages only. There are two kinds, ***general warranty***, which warrants against any and all paramount titles, and ***special warranty***, which warrants only against the acts of the grantor himself and all persons claiming by, through, or under, him. In some jurisdictions this warranty is implied, without being expressly stated, in statutory short forms of conveyance.

2. *Law.* A collateral engagement or undertaking, express or implied, that a certain fact regarding the subject of a contract is, or shall be, as it is expressly or impliedly declared or promised to be. Breach of such an engagement does not avoid the contract, but renders the warrantor liable for damages. In sales of chattels by persons in possession, there is now (though not at the early common law, when sales were generally in market overt) an *implied warranty* of title, but, as to the quality of goods, while the law was formerly that the buyer must look out for himself, the Sales Act has established a number of exceptions.

3. *Insurance Law.* A statement or engagement expressly or impliedly made in a policy by the party insured, that a certain fact relating to the subject of insurance or the risk exists or shall exist, or that some act relating thereto has been done or shall be done. It must be literally true or fulfilled or the policy is void, it operating essentially as a condition precedent to the insurance, and it is distinguished from a *representation*, which is an inducement and need be only substantially true or fulfilled. See AFFIRMATIVE, *adj.*, 4; PROMISSORY, *adj.*, 2.

4. In general senses: **a** That which authorizes, sanctions, supports, or justifies; a justificatory mandate or precept; authorization; substantiating evidence; proofs; as, for such a claim there is no *warranty* in Scriptures; by what *warranty* has he assumed such powers? **b** *Dial.* (1) A guarantee. (2) A warrant, or writ.

‖**de fac'to** (dē făk'tō). [L.] Actually; in fact; in reality; — distinguished from *de jure*. A de facto corporation, court, officer, or the like, must exist under a claim and color of right, which requires that there should be possible a de jure corporation, court, officer, or the like. A de facto government is one actually functioning as a result of a revolution or rebellion but not yet permanently established or recognized.

de·lict' (dē·lĭkt'), *n.* [L. *delictum* fault.] *Law.* An offense or transgression against law; — chiefly used in the Civil and Scots law to designate civil wrongs corresponding closely to the torts of English law, and in the French law (F. *délit*) to designate the milder crimes, which are punishable with imprisonment over a week and under five years. In the early law many offenses were classed as civil wrongs which modern law treats as crimes or public offenses.

cham'per·ty (-tĭ), *n.* [F. *champart* field rent, fr. ML. *campi pars*, fr. L. *campus* field + *pars* share. See CAMP; PART.] **1.** Partnership in power. *Obs.*

2. *Law.* A proceeding by which a person having no legitimate concern in a suit bargains to aid in or carry on its prosecution or defense, by furnishing money or personal services in consideration of his receiving, in the event of success, a share of the matter in suit; maintenance with the addition of an agreement to divide the thing in suit. See MAINTENANCE. In England and a few States of the United States a champertous contract between attorney and client is illegal.

3. A conspiracy. *Obs.* — *Bp. Hall.*

4. Contest; rivalry. *Obs.*

as·sault' (ă·sôlt'), *n.* [ME. *asaut, assaut*, fr. OF. *assaut, asalt*, fr. (assumed) VL. *adsaltus* (L. *assultus*), fr. L. *ad* to + *saltus* a leaping, springing, fr. *salire* to leap. See ASSAIL, *v.*] **1.** A violent onset or attack with physical means, as blows, weapons, etc.; onslaught; as, an *assault* upon a fortification. Hence, of things, a violent hostile onset; as, the *assaults* of death, of evil, etc.

2. A violent onset or attack with nonphysical weapons, as words, arguments, appeals, and the like; as, to make an *assault* on one's character.

3. *Law.* An apparently violent attempt, or a willful offer with force or violence, to do hurt to another, without the actual doing of the hurt threatened, as by lifting the fist or a cane in a threatening manner. The actual doing of the hurt constitutes a *battery*. Often loosely used, and regularly used in Scots law, to include the battery. Neither actual intent nor actual present ability to do the injury threatened is necessary; it is sufficient if the circumstances are such that the person threatened reasonably believes the injury will be done. Assault is both a civil wrong and a criminal offense.

4. *Mil.* The final phase of an attack, wherein the attacker moves forward to determine the issue by close combat.

5. A bout with foils, broadswords, or similar weapons.

6. Rape (sense 2); — a euphemism.

Syn. — Invasion, incursion, descent, onset, storm, attack.

death duty. *Law.* A tax or duty imposed on the transfer of property at the owner's death, by inheritance or will, to an heir, devisee, or legatee; — used in Great Britain to include several duties levied under acts of Parliament, which are: ***account duty***, a duty payable by the beneficiary of a decedent. This is superseded by the estate duty. — ***estate duty***, a duty created by the Finance Act of 1894 (57 & 58 Vict. c. 30) on all property, both real and personal, which passes, or for the purposes of the act is deemed to pass, upon the death of anyone. It varies with the amount of the estate and supersedes the probate duty, the account duty, and the additional succession duty, and the legacy duty and succession duty in case of beneficiaries in the lineal line. — ***legacy duty***, a duty created by 20 Geo. III, c. 28, and payable on beneficial interests devolving upon the decease of a person testate or intestate, and varying with the degree of consanguinity from 1 per cent (in case of lineal relations) up to 10 per cent. — ***probate duty***, a stamp duty on the personal estate payable by the executor or administrator applying for probate of the will or letters of administration. It was superseded by the estate duty (see above). — ***succession duty***. **a** A duty created by 16 & 17 Vict. c. 51 (1853), payable, in installments, by the successor to real property when the successor is not a purchaser for value, the duty varying according to the degree of consanguinity of the successor. **b** An additional duty added to the foregoing by subsequent legislation. Cf. INHERITANCE TAX.

mort'main (môrt'mān), *n.* [OF. *mortemain* (F. *mainmorte*), fr. ML. *mortua manus*. See MORTAL; MANUAL. Cf. AMORTIZE.] *Law.* **a** Literally, dead hand; hence, the hand or possession of ecclesiastical corporations, ecclesiastics being in the early law deemed civilly dead; later, the possession of, or tenure by, any corporation which, by reason of the nature of corporations, may be perpetual. See STATUTES OF MORTMAIN. **b** A license from the sovereign to alienate lands in mortmain.

an'ga·ry (ăng'gȧ·rĭ), *n.* [From ANGARIA.] *Internat. Law.* A right of a belligerent in case of necessity to seize, use, or destroy property of neutrals, esp. to take over use of neutral ships. This right was revived during the World War.

abstract of title. *Law.* An epitome of the successive conveyances and other facts upon which a person's title to a piece of land rests. In the absence of express stipulations the vendor or mortgagor is, in England, required by law to furnish an abstract to the vendee or mortgagee at his own expense; in the United States, this is customary.

contributory negligence. *Law.* Negligence by an injured party which combines with the negligence of the injurer as a proximate and efficient cause in producing the injury. Such negligence bars recovery by the plaintiff at common law, but may only diminish his damages in admiralty and under many recent statutes.

es·cheat' (ĕs·chēt'), *n.* [ME. *eschete*, fr. OF. *eschete, escheoite* (F. *échoite*), fr. *escheoir* (F. *échoir*), fr. (assumed) VL. *excadere* to fall to the lot of, fr. L. *ex* out + *cadere* to fall. See CHANCE; cf. CHEAT.] *Law.* **1.** In the English feudal law, the falling back or reversion of lands to the lord of the fee upon the failure of heirs capable of inheriting under the original grant. This failure of heirs may result from the actual death of the tenant leaving no competent heirs (*propter defectum sanguinis*), or (formerly) from his legal death and the extinction of his blood by attainder (*propter delictum tenentis*). Originally in English law *escheat* was used interchangeably with *reversion* for the falling back of lands to the lord upon failure of heirs to a tenant in fee simple, or failure of heirs of his body to a tenant in tail; but later, after subinfeudation was prohibited and the nature of the estate tail fixed (in the time of Edward I), *escheat* was applied only in case of the tenant in fee simple, and *reversion* in case of the tenant in tail. *Escheat* consequent upon attainder of blood is distinguished from *forfeiture*, which also was formerly consequent upon treason or felony. This escheat was abolished in England by the Felony Act (33 & 34 Vict. c. 23) of 1870.

2. Hence, the lapsing or reverting of land to the crown, or to the State in the United States, as original and ultimate proprietor, by reason of a failure of persons legally entitled to hold the same. See FEE, INQUEST OF OFFICE.

3. Escheated property; also, escheatage.

4. In Scotland, sometimes, any confiscation or forfeiture, called *simple escheat* when absolute, and *liferent escheat* when only of the profit accruing during the person's life.

5. Confiscation or plunder; *pl.*, booty or spoil. *Obs.*

un·til' (ŭn·tĭl'; ŭn-), *prep.* [ME. *until, ontil*, fr. un- (as in *unto*) + *til* till; cf. Dan. *indtil*, Sw. *intill*. See UNTO; TILL, *prep.*] **1.** *Obs. exc. Scot. & N. of Eng.* **a** = TILL, 1 **a**, **b**, **c**. **b** Close against.

2. During the whole time before; up to the time of, implying cessation or reversal at that time; as, to remain *until* evening or the end of the month. Cf. TILL, 2.

☞ In ordinary use, as well as in contracts and other legal documents, the question as to whether *until* is inclusive or exclusive of the date mentioned generally depends upon the connection or circumstances in which the word is used. The weight of judicial decisions is that *until* is prima facie exclusive (111 N. Y. 621; 120 Mass. 94; 66 Kan. 512; 10 Neb. 524; 64 Vt. 566; 44 Fed. 369; 119 Ind. 72; 82 Ind. 498).

3. At any time before; — after a negative expression, implying performance or occurrence at the time mentioned; as, not available *until* tomorrow or *until* after the harvest. Cf. TILL, 3.

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‖**ca′ve·at emp′tor** (kā′vē·ăt ĕmp′tôr). [L.] *Law.* Let the purchaser beware, that is, let him examine the article he is buying, and act on his own judgment and at his own risk; — a maxim implying a rule of English and American law that the purchaser buys at his own risk, except as to express warranties or those implied by law.

quo war·ran′to (kwō wŏ·răn′tō). *Pl.* QUO WARRANTOS (-tōz). [ML., by what warrant. See WHO; WARRANT.] *Law.* **a** Orig., a writ of right (created by the Statute of Gloucester) issuing on behalf of the crown, by which one was required to show by what right he exercised any office, franchise, or liberty; also, the entire pleading by which the action was begun, or the action or proceeding. **b** In modern practice, an action or proceeding for a like purpose begun (in British practice and in that of some of the States of the United States) by an information in the nature of quo warranto or (in some States) by some other statutory pleading; also, the information or pleading by which such action or proceeding is begun, or the action or proceeding itself. The information in the nature of quo warranto was originally primarily of a criminal nature, but it has long been in substance only a civil proceeding. The term *writ of quo warranto* is occasionally used in the United States in statutes or State constitutions to mean the modern information in the nature of a quo warranto.

com′pur·ga′tion (kŏm′pûr·gā′shŭn), *n.* [LL. *compurgatio*, fr. *compurgare* to purify wholly, fr. *com-* + *purgare* to make pure. See PURGE.] **1.** Vindication from a charge; also, testimony or evidence that vindicates.
2. *Law.* The clearing or exculpation of a defendant or accused person by the oaths of persons who swear to his veracity or innocence. Compurgation was long a regular form of trial in the ecclesiastical courts; and in the civil courts it was used in many forms of civil and criminal proceedings until gradually superseded by the jury system. It was abolished in 1833 by 2 & 3 Wm. IV. c. 42 § 13.

fee, *n.* [ME. fief, payment, fr. AF. *fee*, OF. *fiu, fieu, fief*, of G. origin; cf. OHG. *fihu, fehu*, cattle (property, money). See 1st FEE; cf. FEOFF, FEUDAL, FIEF.] **1.** In English feudal law, a heritable estate in land held of a superior lord by whom the estate was granted, and who retains rights in the land, or tenement, and acquires rights against the tenant.
2. In general, in feudal law, any feudal benefice, or estate in land held of a feudal lord; also, sometimes, the interest or right of the lord in the land so held. These rights are often respectively called by the Roman law terms *dominium utile* and *dominium directum.*
3. *Law.* **a** At the common law, an estate of inheritance in land, being either a fee simple or a fee tail (which see). **b** A ***fee simple***; that is, an absolute fee; a fee without limitation to any particular class of heirs or restrictions upon alienation. A fee simple may be either a ***fee simple absolute***, which is one without any condition or limitation whatsoever, or a ***qualified***, or ***limited, fee simple***, often called a *base fee*, which is one that may determine upon the fulfillment of a contingent qualification or limitation, or the happening of a certain event. The term *fee simple*, or the term *fee* alone, is often used as synonymous with the term *fee simple absolute* in the sense noted above. See CONDITIONAL FEE. "Buy the *fee simple* of my life for an hour and a quarter." *Shak.* At the common law, to convey a fee it is essential that the grant should be to the grantee and his "heirs" or to him and the "heirs of his body," according as it is desired to convey an estate in fee simple or fee tail, in the latter case the "words of procreation," such as "of his body," being necessary as well as the word "heirs." By the Conveyancing Act of 1881 in England it is sufficient if the estate be described as a "fee simple" or "in tail," as the case may be, and by custom in some manors other words may be used; the common-law rule has been generally abrogated or greatly modified also in the United States. In a will no technical words are required, but as a general rule the estate will be given which corresponds to the intention shown by the testator.
4. The territory held in fee.
5. **a** *Obs.* The fealty or homage of a vassal. **b** *Now Dial.* Hence, service; employment.
6. That which is granted or paid as due; as: **a** *Obs.* Tribute, as to an overlord. **b** *Now Dial.* A fixed wage for definite or regular service.
7. A charge fixed by law for the services of a public officer or for the use of a privilege under the control of the government; as, sheriff's *fees;* customhouse *fees;* license *fees.*
8. Compensation, often a fixed charge, for professional service or for special and requested exercise of talent or of skill, as by an artist; as, a *fee* for consultation; a retaining *fee.*
9. A fixed charge for admission, as to a museum, or for enjoyment of stated privileges; as, tuition *fees;* club *fees.*

in′fant (ĭn′fănt), *n.* [ME. *enfaunt*, fr. OF. *enfant*, fr. L. *infans*, fr. *in-* not + *fari* to speak. See FAME; cf. INFANTE, INFANTA, INFANTRY.] **1.** A child in the first period of life; a babe; sometimes, a child several years of age.
2. *Law.* A person who is not of full age; a minor. At the common law any person under the age of 21 is an infant; but this rule is varied from in some States of the U. S. An infant becomes of age the first instant of the day preceding the 21st anniversary day of his birth. See AGE, 3.
3. A youth of the nobility or gentry. *Obs.*

‖**ul′tra vi′res** (vī′rēz). [Law L., fr. L. *ultra* beyond + *vires*, pl. of *vis* strength.] Beyond power; transcending authority; esp., beyond or exceeding legal power or authority; — used often in relation to acts by corporations in excess of their chartered or statutory rights, or in a more extended sense of the acts of the directors or other agents of the corporation in excess of their powers as such. An act ultra vires in the first sense is void even if unanimously agreed to by all the corporators; an act ultra vires in the second sense does not bind the dissenting members, but may be ratified by them.

a·lo′di·um, *or, esp. in sense 2,* **al·lo′di·um** (ă·lō′dĭ·ŭm), *n.* [ML., of G. origin; cf. OHG. *al* all, and *ōt* (akin to AS. *ēad*) possession, property. It means, therefore, entirely one's property. Cf. 2d FEUD.] **1.** *A.-S. Law.* A form of estate or class of property not held by feudal tenure. It existed among the Anglo-Saxons at the time of the Norman Conquest and persisted apparently for some time afterwards.
2. *Law.* Land which is the absolute property of the owner; real estate held in absolute independence, without being subject to any rent, service, or acknowledgment to a superior; — opposed to *feud.* By statute in some States, land is declared to be alodial. But since the 17th century the distinction between tenant in fee simple and alodial owner has meant nothing in England or the United States.

eminent domain. *Law.* That superior dominion of the sovereign power over all the property within the state which authorizes it to appropriate all or any part thereof to a necessary public use, reasonable compensation being made. The obligation to give compensation is considered by the best authorities as being incident to the right of eminent domain, and not an imposed limitation. The right of *eminent domain* is usually carefully distinguished from that of *taxation* and the *police power.* In Great Britain the compulsory acquisition of land for public or semipublic purposes is governed by statute, and is called ***compulsory purchase*** in England; in Scotland the transaction is called a ***compulsory surrender.*** Some consider an analogous right, wider than angary, to exist in international law for one nation to appropriate the territory or property of another as a necessary measure of self-protection.

dom′i·cile (dŏm′ĭ·sĭl, 155; 277), *n.* [F., fr. L. *domicilium*, fr. *domus* house. See DOME.] **1.** A place of residence, either of an individual or a family; a dwelling place; an abode; a home or habitation.
2. *Law.* A residence at a particular place accompanied with an intention to remain there for an unlimited time; a residence accepted as a final abode; a home so considered in law. Under modern civilized systems, a person's civil status is determined by his *domicile.*

A man can have but one domicile for one and the same purpose at any one time, though he may have numerous places of residence. *37 N. J. Law*, 492–495.

3. *pl.* Household furniture. *Southern U. S.*
Syn. — See HABITATION.

tort (tôrt), *n.* [OF., fr. (assumed) VL. (ML.) *tortum*, fr. L. *tortus* twisted, crooked, past part. of *torquere* to twist, bend. See TORTURE.] **1.** Wrong inflicted; injury. *Obs.*
2. *Law.* Any wrongful act (not involving a breach of contract) for which a civil action will lie; a civil wrong independent of a contract. See WRONG; cf. TRESPASS, DELICT.

This technical use of the French word *tort* (which at one time was nearly becoming a synonym of wrong in literary English) is not very ancient, and anything like systematic treatment of the subject as a whole is very modern. . . . An offense which is punishable, but for which no one can bring a civil action, is not a *tort.* *Encyc. Brit.*

cor′pus de·lic′ti (dē·lĭk′tī). [L., the body of the crime.] *Law.* The substantial and fundamental fact or facts necessary to the commission of a crime, as in murder the actual death of the person alleged to have been murdered, and as a result of criminal agency; — often used erroneously to designate the physical body of the victim of a murder.

double jeopardy. *Law.* The putting of a person on trial for an offense for which he had theretofore been put on trial under a valid charge, he not having himself procured a new trial. In England new trials are not granted in criminal cases and the qualification does not obtain. See JEOPARDY.

mort′gage (môr′gĭj), *n.* [OF., fr. *mort* dead (fr. L. *mortuus*) + *gage* pledge. See MORTAL; GAGE.] **1.** *Law.* At the common law, a conveyance of property, upon condition, as security for the payment of a debt or the performance of a duty, and to become void upon payment of performance according to the stipulated terms. *Mortgage* was orig. applied, in English real estate law, to a conveyance of land with transfer of possession to the mortgagee, who was entitled to keep the rents and profits without applying them to the debt (whence the name *mortgage*, Lat. *mortuum vadium*, dead pledge, as being dead to the mortgagor) and who acquired an indefeasible title to the mortgaged property upon default. Later it became customary for the mortgagor to retain possession, and the mortgagee's defeasible estate in the land was subjected to the equity of redemption and foreclosure rules of the equity courts. Technically, therefore, at common law the mortgagee's interest is an estate in real property; but, without any corresponding changes in the form of conveyance, the estate has long been treated in equity in England and in many States of the United States as personal, the heir or devisee being treated as trustee of the mortgage for the personal representative, and now, by statute, the interest of the mortgagee is made personal property in Great Britain and generally in the United States. Under these conditions, therefore, a mortgage is: a nominally absolute conveyance of property defeasible only upon certain conditions, but actually operating as a lien or charge securing the payment of money or the performance of an obligation so that the mortgagee may, under certain conditions, take possession and may foreclose the property upon default. Cf. EQUITY OF REDEMPTION, PLEDGE, HYPOTHEC, ANTICHRESIS. The following are types of mortgages: ***construction mortgage***, a mortgage the proceeds of which are to be used to finance the construction of a building; ***installment mortgage***, one in which the sum loaned is to be repaid in installments over a period of time; ***leasehold mortgage***, one in which the property pledged is a leasehold interest; ***participating mortgage***, one in which two or more persons have a share; ***trust mortgage***, one made to a trustee, generally to secure an issue of bonds.
2. The instrument by which a mortgage conveyance is made, the state of the property so conveyed, or the interest of the mortgagee therein.

con·sor′ti·um (kŏn·sôr′shĭ·ŭm), *n.; pl.* -TIA (-shĭ·ȧ). [L., fellowship.] **1.** *Law.* Fellowship; partnership; union; esp., marital association; — used chiefly in the phrase *loss of consortium* in an action for damages for injury to a wife or for alienation of (a consort's) affections.
2. Any association for a common end, as a club or society.
3. Any international business or banking agreement or combination, as for the financial assistance of another nation, or for the control of a particular industry in two or more countries. Cf. CARTEL, TRUST.

man·da′mus (măn·dā′mŭs; 277), *n.* [L., we command, fr. *mandare* to command. See MANDATE.] *Law.* **a** Orig., in England, any of various ancient prerogative writs or mandates issued by the sovereign and directing the performance of some act; hence, the prerogative writ issued, in the absence of any other legal remedy, from the Crown side of the King's Bench Division of the High Court of Justice (formerly from the Court of King's Bench) in the king's name to a public official, to enforce the performance of some public duty. Hence, in the United States, a common-law writ similarly issued by a superior court and directed to some inferior tribunal, or to some corporation or person, to enforce the performance of some public duty. **b** By extension, any of various statutory proceedings in the nature of an order of court similarly used.

heir (âr), *n.* [ME. *heir, eir*, fr. OF. *heir, eir* (F. *hoir*), fr. L. *heres, -edis*, prop., who takes what is left, fr. (assumed) *hero* (akin to Gr. *chēros* left, bereaved, Skr. *jahāti* he leaves, abandons) + *ed* to take, fr. *e*, prep., + *do, dare*, to give. See GO; 2d DATE. Cf. ANCHORITE, HEREDITARY, HERITAGE, INHERIT.] **1.** One who inherits, or is entitled to succeed to the possession of, any property after the death of its owner (see INHERITANCE); specif.: **a** *Eng. Common Law.* The one in whom the fee of the real property of an intestate is vested at his death by operation of law, called ***legal heir*** or ***heir-at-law***, and distinguished from those who take it by will (devisees), by courtesy, or by right of dower, and from those who take the personal estate, whether legatees or next of kin taking by succession. It is used in defining estates to indicate the nature of the estate created rather than to designate any person, and in that event it is called a ***word of limitation.*** Cf. LIMITATION, *n.*, 5 a. **b** *Civil Law.* The heres, or universal successor of a deceased person, whether by operation of law or by a will, succeeding originally to both his rights and his liabilities. See HERES. **c** In modern civil codes based upon the civil law, as in Europe, the person who succeeds to the (entire) estate of a person by operation of law or by testament, with a right of renunciation, and usually a right of entry with the "benefit of inventory." **d** *Scots Law.* Specif., the person in whom by operation of law the beritable estate and part or all of the movables of a decedent is vested upon his decease, called ***legal heir*** or ***heir-at-law***; also, one taking heritable property by destination, or, one who succeeds only to movable estate. **e** Loosely, any person taking more or less of the property of a deceased person, whether by operation of law, by virtue of a will, or in any of various other ways, — the persons intended by the word *heir* being determined from the intent, as shown by the context, including, besides other occasional senses: issue, children, or descendants, as in a will (73 *Ind.* 412, 416) or deed (132 *Ill.* 494); collateral heirs or parents (102 *Pa.* 581, 583; 156 *N. Y.* 181); devisees or legatees (106 *Ala.* 279); distributees (152 *Mass.* 457); legal representative (64 *N. H.* 36); next of kin (145 *N. Y.* 111; 62 *N. J. Eq.* 532).
2. One who receives or is entitled to receive any endowment or quality from a parent, or predecessor; one to whom something should come; the rightful future recipient or possessor; as, the *heir* of one's reputation or virtues.
3. That which is produced; offspring; product. *Obs. Shak.*

diplomatic immunity. *Internat. Law.* The freedom from arrest, taxation, payment of customs charges, and submission to police regulations usually accorded to diplomatic agents, their families and servants.

e·li′sor (ē·lī′zẽr; *older* ĕl′ĭ·zẽr), *n.* [F. *éliseur*, fr. *élire* to choose, fr. L. *eligere.* See ELECT.] **1.** An elector. *Obs.*
2. *Law.* A person appointed by a court to return a jury, serve a writ, or perform other duties of the sheriff or a coroner in case of his disqualification. Hence, *Colloq.*, **elisor jury**, a jury so drawn.

benefit of clergy. 1. *Law.* The privilege, claimed by the medieval church, of demanding a trial and punishment by an ecclesiastical court (which could not inflict the death penalty) for one of the clergy when accused of crime before a temporal court. On the Continent this privilege was very generally allowed; and in England at the time of the Norman Conquest it was allowed to clerks in orders accused of a felony, except high treason. The privilege was extended by degrees to all who could read, and by 6 Anne, c. 9, 1706, to all, without reference to the ability to read. It was abolished in 1827 by the Criminal Law Act (7 & 8 Geo. IV, c. 28, § 6). By an Act of Congress, April 30, 1790, benefit of clergy was prohibited in the Federal courts of the United States.
2. The ministration or sanction of the Church.

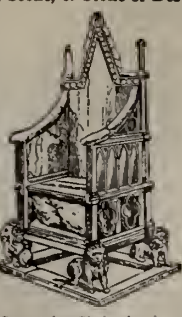
Without *Benefit of Clergy.* *Kipling.*

Enoch Arden law. A statute providing for divorce, or exempting from liability for remarriage, on the ground of unexplained absence of husband or wife for a specified number of years, usually seven. *Colloq., U. S.*

de·cree′ ni′si (nī′sī). *Eng. Law.* The form of decree first made upon a petition for a divorce, which is made absolute at such time (not less than six months) thereafter as may be directed, unless cause to the contrary is shown; sometimes, any decree or order which is to become absolute unless cause to the contrary is shown.

bank′rupt (băngk′rŭpt), *n.* [After L. *rupta*, fr. It. and F.; F. *banqueroute*, fr. It. *banca rotta*, lit., broken bank, fr. *banca* bank + *rotta* broken, fr. L. *rupta*, fem. past part. of *rumpere* to break. See 5th BANK; RUPTURE, *n.*] **1.** Bankruptcy. *Obs.*
2. Any person whose property becomes liable to administration under the bankrupt laws. Under the first bankrupt laws (which were directed against fraudulent traders) the bankrupt was a criminal; but, with the amelioration and extension of these laws, the bankrupt is any person who is insolvent or has done any of the acts (called *acts of bankruptcy*) which the law provides shall entitle his creditors to have his estate administered for their benefit, such as the making of a general assignment, the making of a transfer of his property actually or constructively fraudulent, etc. In England the bankruptcy laws began with the act of 34 & 35 Henry VIII, c. 4; and the principal act now in force is 4 & 5 Geo. V, c. 59 (Aug. 10, 1914). In the United States national bankruptcy acts were passed in 1800, 1841, 1867, and 1898, of which only the last with its amendments is now in force. Specific senses of *bankrupt* referring to these laws are (defs. 3 to 6):
3. A trader who secretes himself, or does certain other acts tending to defraud his creditors. *Obs. exc. Hist. Blackstone.*
4. Loosely, a trader or any debtor who became a refugee to escape his creditors or the laws against debtors. *Obs.*
5. A trader or any person who becomes insolvent.
6. Technically, a person who has on the petition of his creditors or on his own petition been judicially declared to be subject to have his estate administered under the bankrupt laws for the benefit of his creditors. In England, until the year 1861, none but a "trader" could be made a bankrupt; a nontrader failing to meet his liabilities being an *insolvent.* But this distinction was abolished by the Bankruptcy Act of 1861. In the United States in the national acts of 1841, 1867, and 1898, *bankrupt* was applied to others besides those engaged in trade. Cf. INSOLVENT.
7. One who is destitute of or wholly wanting in (something); as, a mental *bankrupt;* a moral *bankrupt.*

Coronation Stone. The Stone of Scone, or Stone of Destiny, upon which the Scottish kings sat at coronation. It was brought to England by Edward I in 1296, and is now preserved at Westminster Abbey in the coronation chair. See LIA FAIL.



Coronation Chair, showing the Coronation Stone.

cor'o·na·to'ri·al (kŏr'ō-nȧ-tō'rĭ-ăl; 181), *adj.* Of or pert. to a coroner. *Rare.*

corona voltmeter. *Elec.* A voltmeter which measures the peak voltage of an electric circuit, consisting of a metal tube with a central wire and means of varying the air density within the tube until corona appears.

cor'o·ner (kŏr'ō-nẽr), *n.* [OF. *corone* crown, fr. L. *corona.* See CROWN; cf. CROWNER.] **1.** Orig., in England, an officer (called *custos placitorum coronae*), established by an ordinance of 1194, whose duty was to keep (a record of) the pleas of the crown in a county, and guard the royal revenues arising from them. Now, by a gradual change of function, a public officer whose principal duty is to inquire by an inquest (which see) held in the presence of a jury (called a **coroner's jury**) into the cause of any death which there is reason to suppose is not due to natural causes. By statute in some of the United States and in some British colonies his duties have been changed or the office abolished, a **medical examiner** taking his place in some jurisdictions.
2. In the Isle of Man, a chief constable. See SHEADING.

cor'o·net (kŏr'ō-nĕt; -nĭt; 119), *n.* [OF. *coronete,* dim. of *corone* crown. See CROWN; cf. CROWNET, CRONET.] **1.** A small or inferior crown; esp., a crown worn as the mark of high rank lower than sovereignty (though with Shakespeare sometimes a kingly crown); also, a figure of a coronet, as in heraldry, etc. Coronets for the British nobility consist of

English Coronets: 1 Prince of Wales; 2 Younger Son and Brother of the Blood Royal; 3 Nephew, etc., of the Blood Royal; 4 Duke; 5 Marquis; 6 Earl; 7 Viscount; 8 Baron.

circlets adorned with: (1) eight conventional strawberry leaves, for a duke; (2) four strawberry leaves alternating with four pearls, for a marquis; (3) eight pearls or rays alternating with as many leaves, for an earl; (4) sixteen pearls, for a viscount, (5) six pearls, for a baron. The *coronet* of the Prince of Wales differs from the crown of England only in having a single arch.

> Without a star, a *coronet,* or garter. — *Goldsmith.*
> Kind hearts are more than *coronets,*
> And simple faith than Norman blood. — *Tennyson.*

2. An ornamental fillet or wreath worn round the temples; esp., an ornamental plate or band of metal, or the like, constituting part of a woman's headdress.
3. *Arch.* A decorative piece, as a pediment, wrought in relief on a wall above a window or door. *Eng.*
4. *Bot.* **a** = CORONA, 8 **b**. **b** *Obs.* = CORONA, 8 **c**.
5. *Card Playing.* In vint and some other games a sequence of three or more cards in any suit, or three or four aces, held in one hand.
6. *Veter.* The lower part of a horse's pastern where the horn terminates in skin.
7. *Zool.* **a** The burr of an antler. **b** A small crownlike structure; esp., a terminal circle of small spines or hairs.

cor'o·net, *v. t.* To bestow a coronet upon, to crown. *Rare.*

cor'o·net'ed (kŏr'ō-nĕt'ĕd; -ĭd; 119), *adj.* **1.** Wearing, or entitled to wear, a coronet; of noble birth or rank; adorned or sealed with the emblem of a coronet. Also **cor'o·net'ted.**
2. Worn or arranged like a coronet; as, *coroneted* tresses.

cor'o·net'ty, cor'o·net'tee (-nĕt'ĭ), *adj.* *Her.* Formed like a coronet; having a coronetlike ornament.

Co·ro'nid (kō-rō'nĭd), *n.* [*Corona* + 1st *-id.*] *Astron.* Any one of a shower of meteors whose radiant is in the constellation Corona Borealis; — usually in *pl.*

co·ro'ni·form (kō-rō'nĭ-fôrm), *adj.* [L. *corona* crown + *-form.*] Crown-shaped.

Cor'o·nil'la (kŏr'ō-nĭl'ȧ), n. [NL. & Sp. dim. of L. *corona* crown; appar. referring to the flower clusters.] **1.** *Bot.* **a** A genus of Old World herbs of the pea family (Fabaceae), having purple, pink, or yellow flowers in heads or umbels. *C. varia* is the axseed; *C. emerus,* the scorpion senna, is cathartic. **b** [*not cap.*] Any plant of this genus.
2. [*not cap.*] Also **co'ro·nil'lo** (kō'rō-nēl'yō; -nē'yō; 170). A valuable timber tree (*Gleditsia amorphoides*) of Argentina, the bark of which yields a saponin.

cor'o·nil'lin (kŏr'ō-nĭl'ĭn), *n.* *Chem.* A poisonous glucoside from *Coronilla scorpioides* and related species.

co·ro'ni·on (kō-rō'nĭ-ŏn), n. [NL.] *Anat.* The tip of the coronoid process of the mandible. See CRANIOMETRY, *Illust.*

Co·ro'nis (kō-rō'nĭs), n. [L., fr. Gr. *korōnis.*] *Gr. Myth.* **a** A daughter of a Thessalian prince and mother of Asclepius, who is therefore called **Cor'o·ni'des** (kŏr'ō-nī'dēz). **b** A Phocian princess who was changed into a crow by Athena.

cor'o·ni'tis (kŏr'ō-nī'tĭs), *n.* [NL., fr. *corona* + *-itis.*] *Veter.* Inflammation of the coronary cushion of animals.

co·ro'ni·um (kō-rō'nĭ-ŭm), *n.* [NL., fr. *corona* + *-ium.*] *Astrophysics.* A hypothetical element in the solar corona whose spectrum shows a number of lines not yet identified as belonging to known terrestrial elements. It is at present believed to be some known element under unknown conditions of excitation, rather than a new element.

cor'o·nize (kŏr'ō-nīz), *v. t.* [L. *corona* crown.] To crown.

co·ro'no- (kō-rō'nō-; kŏr'ō-nō-). *Anat.* Combining form for *coronal;* as in: **co·ro'no·bas'i·lar, co·ro'no·fa'cial.**

co·ro'no·fron'tal (-frŭn'tăl; frŏn'tăl; -t'l), *adj.* *Craniol.* Pert. to both coronal and frontal regions of the cranium.

cor'o·noid (kŏr'ō-noid), *adj.* [Gr. *korōnē* crow + *-oid.*] *Anat.* Resembling the beak of a crow; as, the *coronoid* fossa, the depression in the humerus into which the coronoid process of the ulna fits when the arm is flexed.

cor'o·noid (kŏr'ō-noid), *n.* *Zool.* A small bone in the lower jaw of certain reptiles, as crocodiles.

Co·ron'o·pus (kō-rŏn'ō-pŭs), *n.* [NL.] *Bot.* A small genus of widely distributed, ill-smelling herbs of the mustard family (Brassicaceae), called *swine's-cresses* or *wart cresses.* Syn. *Carara.*

cor'o·nule (kŏr'ō-nūl; kō-rō'nūl), *n.* [*corona* + *-ule.*] *Bot.* **a** The crown of projecting cells at the tip of the oögonium in the stoneworts. **b** The peripheral ring, or crown, of spines on the shells of some diatoms, as the genus *Stephanodiscus.*

cor'o·plast (kŏr'ō-plăst), *n.; pl.* -PLASTAE (-plăs'tē). [Gr. *koroplastēs,* fr. *korē* maiden + *plassein* to mold.] *Gr. Antiq.* A modeler of terra-cotta figurines, esp. representations of young women. — **cor'o·plas'tic** (-plăs'tĭk), *adj.*

Co'ro·po' (kōō'rōō-pō'), *n.* See GOYATACAN.

co·ro'zo (kō-rō'sō; 267), **co·ro'jo** (-hō; 162), *n.; pl.* -ZOS (*E.* -sōz), -JOS (*E.* -hōz). [Sp. *corozo,* of Cent. or S. Amer. Indian origin.] **1.** Also **corozo palm.** Any of several tropical American palms: **a** The ivory palm. **b** The cohune palm. **c** Any species of *Acrocomia;* in the West Indies, esp. *A. aculeata.* **d** Any of several species of *Cocos.*
2. Also **corozo nut.** The seed of the ivory palm.
3. Also **corozo fiber.** A strong leaf fiber obtained from *Acrocomia lasiospatha,* used for making ropes.

corp candle. A will-o'-the-wisp. *Scot.*

cor'po·ra (kôr'pō-rȧ), *n., pl.* of CORPUS.

‖**cor'po·ra am'y·la'ce·a** (ăm'ĭ-lā'shē-ȧ). [NL.] *Anat.* Small, usually concentrically striated starchy bodies, staining blue with iodine, found in many parts of the brain, esp. about the ventricles, and in certain other organs.

‖**cor'po·ra A·ran'ti·i** (ȧ-răn'shĭ-ī). [After J. C. Aranzi, It. anatomist.] *Anat.* Small fibrous nodules occurring at the middle of the free margin of the semilunar valves.

‖**cor'po·ra bi·ge'mi·na** (bī-jĕm'ĭ-nȧ). [NL., twin bodies.] *Zool.* In fishes, birds, amphibians, and reptiles, a pair of hollow elevations on the dorsal surface of the midbrain corresponding to the corpora quadrigemina of mammals.

cor'po·ral (kôr'pō-răl), *n.* Also **cor'po·ra'le** (-rā'lē). [ML. *corporale.* See CORPORAL, *adj.*] *Eccl.* A linen cloth on which the sacred elements are consecrated in the Eucharist, or with which they are covered; a Communion cloth.

cor'po·ral, *adj.* [OF. (F. *corporel*), fr. L. *corporalis,* fr. *corpus* body. See CORPSE.] **1.** Belonging or relating to the body; bodily. "*Corporal* toil." *Shak.* "*Corporal* inflictions." *Milton.*
2. Hence, of or relating to the person; personal.
3. Corporeal; material; also, embodied. *Archaic.*

> What seemed *corporal* melted
> As breath into the wind. — *Shak.*

4. *Zool.* Of or pertaining to the body, as distinguished from the head and limbs.
Syn. — See BODILY. **Ant.** — See SPIRITUAL.
— **cor'po·ral·ly,** *adv.*

cor'po·ral (kôr'pō-răl), *n.* [F. *caporal,* formerly also *corporal,* fr. It. *caporale,* fr. *capo* head, chief, fr. L. *caput;* influenced by L. *corporalis,* adj. See CHIEF; cf. CAPORAL, CORPORAL, *adj.*] **1.** *Mil.* The lowest noncommissioned officer, next below a sergeant. In the United States Army he is the leader of the squad.
2. *Nav.* Formerly, a petty officer who had charge of setting and relieving the watch, of teaching the use and care of the small arms, etc.; later, an assistant to the master-at-arms, — subsequently called *master-at-arms,* 1st, 2d, or 3d class.
3. The fallfish (*Leucosomus corporalis*).

Cor'po·ral Forbes' (fôrbz'). Cholera morbus. *Anglo-Ind.*

cor'po·ral·ism (kôr'pō-răl-ĭz'm), *n.* The attitude that war is constituted by the drill, petty technique, etc. that occupy a corporal.

cor'po·ral'i·ty (kôr'pō-răl'ĭ-tĭ), *n.; pl.* -TIES (-tĭz). [LL. *corporalitas.*] **1.** State or quality of being or having a body; corporeality; also, embodied quality, state, or existence; bodily substance; body.
2. A body of persons; a corporation. *Obs.* *Milton.*
3. *pl.* Things that concern the body.

Corporal John. John Churchill (1650–1722), Duke of Marlborough, who had been a corporal.

corporal oath. *Law.* An oath solemnized by actually touching a sacred object, as the Gospels.

corporal punishment. *Law.* Punishment applied to the body of the offender, including the death penalty, whipping, and imprisonment.

cor'po·ral's guard (kôr'pō-rălz). A small detachment such as a corporal commands; hence, a small group of followers.

cor'po·ral·ship' (kôr'pō-răl-shĭp'), *n.* *Mil.* **a** *Obs.* A body of soldiers under a corporal's command. **b** A corporal's office or position.

Cor'po·ral Trim' (trĭm'). Uncle Toby's attendant in Sterne's *Tristram Shandy,* distinguished for his fidelity.

Corporal Violet. [F. *Caporal la Violette.*] Napoleon; — so called by adherents in France during his exile at Elba, who hoped for his return with the violets in the spring.

‖**cor'po·ra ni'gra** (nī'grȧ). [L., lit., black bodies.] *Anat.* Smooth, rounded, darkly pigmented projecting masses outside the free border of the upper portion of the iris.

‖**cor'po·ra quad'ri·ge'mi·na** (kwŏd'rĭ-jĕm'ĭ-nȧ). [NL., fourfold bodies.] *Anat. & Zool.* In mammals, two pairs of elevations on the dorsal surface of the midbrain, composed of white matter externally and gray matter within. Each elevation is called a *colliculus.* The anterior, superior, or upper pair, called the *nates,* contain correlation centers for optic reflexes; the posterior or inferior pair, called the *testes,* contain correlation centers for auditory reflexes. Cf. CORPORA BIGEMINA.

cor'po·ras (kôr'pō-răs), *n.* [OF. *corporaus,* nom. sing. of *corporal.*] The corporal, or communion cloth.

cor'po·rate (kôr'pō-rĭt), *adj.* [L. *corporatus,* past part. of *corporare* to shape into a body, fr. *corpus* body. See CORPSE.] **1.** Combined into one body; united; grouped together. Also, pert. to a body made up of particulars; pert. to a closely unified body of individuals; aggregate. "The *corporate* decay of the Forsytes." *Galsworthy.*

> *Corporate* judgment . . . is meant to include all such affirmations as deal with comprehensive totalities. — *B. Bosanquet.*

2. Formed into a body by legal enactment; united in an association, and endowed by law with the rights and liabilities of an individual; incorporated; as, a *corporate* town.
3. Belonging to a corporation or incorporated body. "*Corporate* property." *Hallam.*
4. *Obs.* **a** Corpulent. **b** Embodied. **c** Pertaining to the body.
— **cor'po·rate·ly,** *adv.* — **cor'po·rate·ness,** *n.*

cor'po·rate (-rāt), *v. t.* To incorporate. *Now Rare.* — *v. i.* To become incorporated. *Rare.*

corporate bonding. See INSURANCE.

corporate colony. See CHARTER COLONY.

corporate county. See COUNTY, 3 **b**.

corporate member. An actual or voting member of a corporation, as disting. from an associate or one honorary.

corporate name. Legal name of a corporation.

corporate stock. See STOCK, *n.*

corporate trust. *Finance.* A trust in which the cestui que trust is a corporation. *Colloq., U. S.*

cor'po·ra'tion (kôr'pō-rā'shŭn), *n.* [LL. *corporatio* incorporation.] **1.** Act of incorporating; state of being incorporated. *Obs.*
2. A body of united or associated persons; specif. [*cap.*], body of municipal authorities; as, the *Corporation* of the City of London.
3. *Roman, Civil, & Theoretical Law.* Any group of persons or objects treated by the law as an individual or unity having rights or liabilities, or both, distinct from those of the persons or objects composing it; a body corporate; a university or universitas (which see); hence, a single person or object treated by the law as having a legal individuality or entity other than that of a natural person; a juristic person (see PERSON). "According to some authorities, the requirement of state recognition as a prerequisite of juristic personality [corporate existence] was unknown under the [Roman] Republic. It was certainly relaxed in favor of ecclesiastical bodies by the Christian emperors, and was not, as a general rule, insisted upon during the Middle Ages" (*T. E. Holland*). A corporation is generally considered to exist only by fiction of law. Some modern law writers, however, reject the conception of a person existing by legal fiction, and explain a corporation as merely a number of natural persons acting under special rules of agency, or representation, and governed by special rules of succession; others, going to an opposite extreme and maintaining the ***anthropomorphic theory,*** so called, regard the corporation as having a true personality other than the sum or resultant of its members, and not created, but merely recognized, by the law.
4. *Eng. & Amer. Common and Statute Law.* A body politic or corporate formed and authorized by law to act as a single person, and endowed by law with the capacity of succession; an entity recognized by law as constituted by one or more persons and as having various rights and duties together with the capacity of succession; a juristic person constituted by one or more natural persons. The definition most commonly accepted by judicial decision in the United States is that of the Dartmouth College Case (see cit., below). Such a corporation can be formed only by prescription, patent of the crown, or legislative act, either special or general. (See CHARTER, ARTICLES OF ASSOCIATION.) *Corporations* having two or more members, called ***corporations aggregate,*** are the more usual form. Such corporations are constituted by the mayor and aldermen of cities, the head and fellows of a college, the dean and chapter of a cathedral church, the stockholders of any industrial or financial company, etc. A *corporation* consisting of a single person is called a ***corporation sole.*** Kings, bishops, deans, parsons, and vicars, are in England sole corporations; there are few instances of such corporations in the United States. As classed according to their purposes, corporations are: ***ecclesiastical corporations,*** those concerned only with religious matters and consisting wholly of spiritual persons; and ***lay corporations,*** including all others. Lay corporations may be: ***eleemosynary corporations,*** those created for charitable uses (see CHARITY, *n.,* 11); and ***civil corporations,*** those formed for temporal purposes, and comprising ***public,*** or ***municipal, corporations,*** those created for purposes of government, and ***private corporations,*** including all others of a civil nature, as ordinary business corporations and those corporations, such as railroad companies, lighting companies, water companies, etc., organized or chartered to follow a public calling (see PUBLIC, *adj.*) or to render services more or less essential to the general public convenience or safety, and now often called ***public-service corporations*** or sometimes ***quasi-public corporations.*** With reference to their limited powers various corporations consisting of a person or body of persons invested with some of the qualities of an artificial person, though not expressly incorporated, esp. the officials of certain municipal divisions such as counties, school districts, and the towns of some States of the United States, certain church officials, as a churchwarden, etc., are called ***quasi corporations*** (hence ***quasi corporateness***), those with fuller powers, such as the ordinary business or ecclesiastical corporation, being sometimes called ***complete corporations.*** Cf. COMPANY, 3.

> A *corporation* is an artificial being, invisible, intangible, and existing only in contemplation of law. — *Dartmouth College Case* (17 *U. S.* 518, 636).

5. The area governed by a municipal corporation.
6. The abdomen or belly, esp. when protuberant. *Colloq.* "Sirrah! my *corporation* is made up of good wholesome English fat." *Smollett.*

Corporation Act. *Eng. Hist.* An act passed in 1661 requiring all officers in municipal corporations to acknowledge the royal supremacy, to accept the doctrine of passive obedience, to abjure the Solemn League and Covenant, and to receive the sacrament according to the rites of the Church of England. It was repealed in 1828.

cor'po·ra'tion·al (kôr'pō-rā'shŭn-ăl; -'l), *adj.* Of or pertaining to corporation.

cor'po·ra'tion·er (kôr'pō-rā'shŭn-ẽr), *n.* One belonging to a corporation.

corporation stock. Stock issued by an incorporated municipality; — chiefly in English use. The usual equivalent in the United States is MUNICIPAL BOND. See STOCK, *n.*

cor'po·ra'tive (kôr'pō-rā'tĭv; -rȧ-tĭv), *adj.* [LL. *corporativus* pertaining to the forming of a body.] Pertaining to, or consisting of, a corporation.

cor'po·ra'tor (-rā'tẽr), *n.* A member of a corporation.

cor'po·ra·ture (kôr'pō-rȧ-tūr), n. [L. *corporatura.*] Bodily structure, existence, or constitution, esp. as influenced by natal planet. *Now Astrol.*

‖**cor'po·ra vi'li·a** (vĭl'ĭ-ȧ). *Pl.* of CORPUS VILE.

cor·po're·al (kôr-pō'rē-ăl; 181), *adj.* [L. *corporeus,* fr. *corpus* body. See CORPSE.] **1.** Of the nature of, consisting of, or pertaining to, matter or a material body; physical; bodily; material; — opposed to *spiritual* or *immaterial.*

> The tired household of *corporeal* sense. — *Wordsworth.*

2. Of or pertaining to the human body; corporal; as, *corporeal* investiture; *corporeal* punishment.
3. Tangible or palpable; — of property, as land or gold.
Syn. — See BODILY. **Ant.** — See SPIRITUAL.
— **cor·po're·al·ly,** *adv.*

corporeal hereditament. See HEREDITAMENT, *n.*

cor·po're·al·ist (-ĭst), n. A materialist. *Rare.* *Berkeley.*

cor·po're·al'i·ty (kôr-pō'rē-ăl'ĭ-tĭ; 181), *n.* State or quality of being corporeal; corporeal existence; humorously, the body.

cor·po're·al·ize (kôr-pō'rē-ăl-īz), *v. t.* To make corporeal. — **cor·po're·al·i·za'tion** (-ĭ-zā'shŭn; -ī-zā'shŭn), n.

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corone † CROWN, CORONA.
cor'o·nel. † COLONEL, CORONAL.
cor'o·ner·ship', *n.* See -SHIP.
cor'o·net. † CORNET, a headdress.
cor'o·plas'ta (kŏr'ō-plăs'tȧ), *n.; pl.* -TAE (-tē). [NL.] = COROPLAST.
cor'o·plas'ty, cor'o·plas'tic, etc. Vars. of COREPLASTY, COREPLASTIC, etc.
co·ro'so (kō-rō'sō). Var. of COROZO.
coroun, corounne. † CROWN.
Co·ro'zain (kō-rō'zān). *D. Bib.*
corp (kôrp). Dial. var. of CORPSE.
corporace. † CORPORAS.
cor'po·ra'tion·ism, *n.* See -ISM.
cor'po·rax. Var. of CORPORAS.
cor·po're·al·ness, *n.* See -NESS.

In British usage the *guarantor* (who is usually called the *surety*) is in general liable upon the default of the principal without notice, unless otherwise stipulated. In some States of the U. S. the same usage obtains, as in the State of New York. In other States a distinction is made between *guaranty* and *suretyship*, *guarantor* and *surety*, the distinction being given in Courtis *v.* Dennis (7 Metcalf, 518), cited under GUARANTOR. Where this distinction obtains the guarantor is usually held to be liable only on due proceedings having been ineffectually taken to enforce the claim against the principal. In general a guaranty comes within the provisions of the Statute of Frauds providing that "no action shall be brought whereby to charge the defendant upon any special promise to answer for the debt, default, or miscarriage of another person . . . unless the agreement, . . . or some memorandum or note thereof, shall be in writing, signed by the party to be charged therewith" or his lawfully authorized agent.
2. An agreement by which one person promises to make another secure in the possession, enjoyment, or the like, of something; an agreement by which one undertakes to make sure the existence, continuance, or the like, of something.
3. Something given or possessed as security for the existence or continuance of something; something given or had as a means of securing the existence, performance, or fulfillment of something; a security.
4. A person who accepts, or gives assurance of, responsibility for something.
5. *Internat. Law.* See TREATY OF GUARANTY.

guar'an·ty (găr'ăn·tĭ), *v. t.*; -AN·TIED (-tĭd); -AN·TY·ING (-tĭ·ĭng). To guarantee. See GUARANTEE, *v. t.*

‖**gua·ra'po** (gwä·rä'pō; wä·rä'pō; 142), *n.* [Sp. *guarapo*, *huarapo*, fr. Quechua *huarapu.*] A fermented drink made from sugar cane. *Sp. Am.*

gua'ra·pu·cu' (gwä'rȧ·po͞o·ko͞o'), *n.* [Tupi. *guarapucú.*] The wahoo (*Acanthocybium solandri*).

Gua·rau'no (gwä·rou'nō; 142), *n.* An Indian of a tribe dwelling in eastern Venezuela and northwestern British Guiana. Called also *Guaruan, Warrau.* Cf. CARIB. — **Gua·rau'no, Gua·rau'nan** (-năn), *adj.*

guard (gärd; 138), *v.*; GUARD'ED; GUARD'ING. [OF. *guarder, garder* (ONF. *warder*, F. *garder*), of Teut. origin; cf. OS. *wardōn.* See WARD; cf. GUARD, *n.*] *Transitive*: **1.** To protect the edge of, esp. with an ornamental border; hence, formerly, to face or ornament with lists, laces, etc.

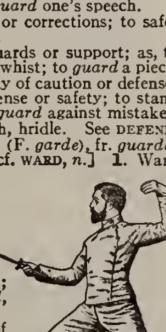
The body of your discourse is sometimes *guarded* with fragments, and the guards are but slightly basted on neither. *Shak.*

2. To protect from danger; to defend; shield.

For Heaven still *guards* the right. *Shak.*

3. To accompany as for protection; to escort. *Archaic.*
4. To watch over, to prevent escape or restrain from violence, from indiscretion, or the like; to restrain; as, to *guard* a prisoner or a maniac; to *guard* one's speech.
5. To furnish with proper checks or corrections; to safeguard; as, to *guard* an experiment.
6. In games, to protect by safeguards or support; as, to *guard* high cards with low ones in whist; to *guard* a piece.
—, *Intransitive*: To watch by way of caution or defense; to be in a state or position of defense or safety; to stand guard; to take precautions; as, to *guard* against mistakes.
Syn. — Protect, keep, watch; curb, bridle. See DEFEND.

guard (gärd; 138), *n.* [OF. *guarde* (F. *garde*), fr. *guarder* to ward, guard. See GUARD, *v.*; cf. WARD, *n.*] **1.** Ward guardianship. *Obs.*
2. A posture of defense, as in fencing, bayonet exercise, boxing, etc.; the position of one's weapon or of one's body in such a posture; — used esp. in phrases; as, *off one's guard, on one's guard, under one's guard.*


Guard, 2, in Fencing.

3. Hence, state of being, or act of holding, in ward; protection; defense; as, a nation's welfare is in the *guard* of its citizens; also, state or act of holding ward, or watch against danger; as, to keep *guard*.
4. Quality of being watchful against danger or mishap; caution; also, an instance of caution or a means of forestalling ill; a safeguard; precaution. *Archaic.*

The poor gentleman has no *guard*, no caution. *Richardson.*

5. One who or that which guards against injury, danger, or attack; — often used in phrases; as, coast *guard*.

His greatness was no *guard* to bar heaven's shaft. *Shak.*

6. A man or body of men stationed to protect or control a person or position; a watch; a sentinel; specif., a soldier or sailor, or a number of them, on guard duty.

The *guard* which kept the door. 1 *Kings* xiv. 27.

7. A border trimming on a garment, generally of lace or embroidery. *Obs. exc. Hist.*
8. Any fixture or attachment designed to protect or secure against injury, soiling, or defacement, theft, or loss; as: **a** That part of a sword hilt which protects the hand. **b** A chain or cord for fastening a watch to one's dress. **c** A fender. **d** = SHIELD, *n.*, 7.
9. A society officer, as of Freemasons.
10 *pl.* [*cap.*] *Astron.* The "Pointers" of the Great Bear; also Beta and Gamma in Ursa Minor. *Obs.*
11. *Bookbinding.* A projecting paper or muslin strip bound in with book leaves, as in a scrapbook or album, to provide expansion space between them for material affixed in the book, and thus guard against its breaking; also, a paper or muslin strip to which an insert is affixed, the strip being tipped or sewed in the binding.
12. *Elec.* **a** A device for protecting electrical apparatus from leakage currents. **b** A device used to rearrange the magnetic or electric field. Cf. GUARD RING **a**.
13. *Firearms.* A plate of metal, called a *bow*, beneath the stock, or the lock frame, of a gun or pistol, and having a loop to protect the trigger; — called usually *trigger guard.*
14. *Games.* **a** *Amer. Football.* One of two players, called ***right guard*** and ***left guard***, next to the center in the line-up. **b** *Basketball.* Either of two players, called ***right guard*** and ***left guard***, stationed at the rear of the court, whose play is primarily defensive. **c** *Cricket.* The position of a batsman or his bat in guarding the wicket. **d** *Curling, Bowls, etc.* A stone, bowl, etc., played to a position where it protects another from attack.
15. *Mil.* **a** The service or duties of one who keeps military watch. **b** *pl.* In the British Army, certain troops attached to the person of the sovereign. They are: the household cavalry, consisting of the 1st and 2d Life Guards and the Royal Horse Guards; the Foot Guards, consisting of the Grenadier, Coldstream, Scots, and Irish Guards; and seven regiments of dragoons.
16. *Naut.* **a** A fence or rail to prevent falling from the deck of a vessel. **b** *pl.* An extension of the deck of a vessel beyond the hull; esp., in side-wheel steam vessels, the framework of timbers protecting the paddle wheel and shaft.
17. *Paleontol.* The hard calcareous fusiform or subcylindrical piece which insheathes the phragmacone and forms the rear end of the shell of belemnites; the rostrum.
18. *Railroads.* **a** *Brit.* A railroad conductor. **b** *U. S.* A brakeman or gateman, as on an elevated railroad. **c** A cowcatcher.
19. *Sports.* Any of various devices worn by contestants as a protection against injury to some part; as, a shin *guard*.
Syn. — Shield, protector; convoy, escort; care, attention.
— ***to be on, or off, one's guard.*** See def. 2, above.

-guard (-gärd). The noun *guard* in combination, denoting: **a** *A person* or *body*, as of troops, *serving as guard of*, as in life*guard*, mail*guard*, van*guard*. **b** *A thing*, esp. *a device, that serves to guard*, as in fire*guard*, mud*guard*.

guard'ant (gär'dănt), *adj.* [F. *gardant*, pres. part. of *garder.* See GUARD, *v.*] **1.** *Her.* Gardant.
2. Acting as a guard or guardian.

guard'ant, *n.* A guardian. *Obs.*

guard boat. A boat detailed on guard duty, as one employed as a picket to guard against surprise, or one used by harbor authorities.

guard book. **1.** A book with guards, as a scrapbook.
2. *Nav.* A book carried in a guard boat on boarding trips in which are entered the orders received aboard the flagship.

guard brush. *Elec. Railroads.* A metallic brush for "picking up" the current from the live rail.

guard cartridge. *Mil.* A cartridge having a reduced powder charge and giving a low muzzle velocity to the bullet, used in riots and for guards in time of peace.

guard cell. **a** *Bot.* See STOMA. **b** *Anat.* One of the small cells bordering the stomata of serous membranes. Their expansion and contraction are said to influence the size of the opening.

guard chamber. A guardroom.

guard'ed, *adj.* Protected; defended; also, cautious; wary; circumspect; as, he was *guarded* in his expressions; framed or uttered with caution; as, his expressions were *guarded*. — **guard'ed·ly**, *adv.* — **guard'ed·ness**, *n.*
Syn. — Discreet, watchful. Cf. CAREFUL.
Ant. — Rash, incautious.

guarded sections. *Bookbinding.* Book sections or signatures strengthened with muslin strips or guards.

guard'er (gär'dẽr), *n.* One who or that which guards; specif., a worker who puts on guards, as on forks. *Eng.*

guard flag. A special flag flown on the guardship of a squadron.

guard'ful (gärd'fo͝ol; -f'l), *adj.* Cautious. *Rare.* — **guard'ful·ly**, *adv.* *Rare.*

guard hair. See 1st FUR, 3.

guard'house' (gärd'hous'), *n.* *Mil.* A building which is occupied by a guard, usually one in which prisoners are confined for misconduct; hence, a military lockup.

guard'i·an (gär'dĭ·ăn; 138; *the dialectal* gär·dēn' *is a survival of an older pron. no longer in good use*), *n.* [OF. *gardien*, fr. *guardenc*, where the suffix is the Teut. *-ing.* See GUARD; -ING. Cf. WARDEN.] **1.** One who guards, preserves, or secures; one to whom any person or thing is committed for protection, security, or preservation.
2. *Law.* One who has, or is entitled to, the care and management of the person or property, or both, of another, as of a minor or of a person incapable of managing his own affairs. Cf. CURATOR, TUTOR, COMMITTEE. The various species of guardians recognized by the law of England at the time of the separation of the United States in 1776, and to which those of the United States in general conform, are: ***Guardian by nature.*** **a** The father with respect to the person of his heir apparent or heiress presumptive — of little importance and doubtful existence since the abolition of tenures in chivalry. **b** A natural guardian. ***Guardian for nurture*** or ***by nurture***, the father, or upon his decease the mother, with respect to the persons of all children under 14 years of age. These two forms of guardianship, as distinguished from the general parental control, are now of no practical importance. (See *Natural guardian*, below.) ***Guardian by election***, a guardian elected by an infant himself having lands in socage upon attaining his 14th year. The law upon this kind of guardianship is obscure; and this guardianship is nearly or wholly disused. ***Guardian by statute***, or, as commonly called, ***testamentary guardian***, a person appointed as guardian by deed or will (by virtue of 12 Chas. II (1660) c. 24, or later enabling statute). ***Guardian in socage***, the person who in case of the legal estate of lands held in socage having descended to an infant, is his next of blood to whom the inheritance cannot descend. ***Guardian by custom.*** **a** A guardian according to a custom existing in respect of lands of copyhold tenure, where the right of guardianship falls to the next of blood incapable of inheriting the estate, or may be claimed by special custom by the lord of the manor or his nominee. **b** A guardian according to a now disused custom of London. ***Guardian ad litem*** [L., for the suit], a guardian appointed by a court of justice to conduct or defend a particular suit or legal proceeding on behalf of the infant. Such a guardian has no charge of the infant's person or property. To these classes in England there has been added the ***guardian by appointment of the High Court of Justice***, appointed by that court, as where the father fails to appoint a testamentary guardian. ***Natural guardian*** is used to denote the father or mother acting as guardian; — a term not in technical legal usage, but popularly used to imply parental authority.
3. The head of a convent of Franciscans.
4. *pl.* [*cap.*] *Astron.* = GUARD, *n.*, 10. *Obs.*
5. [*cap.*] The head or chief official of the Bahais.
Syn. — Defender, protector; custodian, keeper.

guard'i·an (gär'dĭ·ăn; 159), *adj.* Performing, or appropriate to, the office of a protector; as, a *guardian* care.

guardian angel. An angel supposed to have special care for a particular individual. Cf. GENIUS, 2 **a**.

guardian cell. = GUARD CELL.

guard'i·an·cy (gär'dĭ·ăn·sĭ), *n.* Guardianship. *Rare.*

guard'i·an·ly, *adj.* Pertaining to a guardian. *Rare.*

guardian of the fire. See CAMPFIRE GIRL.

guardians of the poor. The members of a board appointed or elected to care for the relief of the poor, or administer the poor laws, within a township, parish, or district. *Eng.*

guardian spirit. A tutelary; a genius. See GENIUS, 1.

guard line. In electrotyping, a type-high piece of metal within a blank part of a form to bear off pressure; also, one of several such pieces around a page to confine the flow of wax during molding.

guard lock. **1.** *Engin.* A tide lock at the mouth of a dock or basin.
2. *Locksmithing.* A lock guarding the keyhole or bolt of another lock, and having to be unlocked before the key of the main lock can be operated.

guard mounting. Also **guard mount.** *Mil.* The ceremony of installing the new guard and relieving the old one.

guar'do (gär'dō), *n.* *Nav.* A receiving ship. *Slang, U. S.*

guard of honor. The color guard. See COLOR GUARD.

guard of the standard. *Mil.* See COLOR GUARD.

guard pin. *Horol.* = SAFETY PIN.

guard plate. **a** *Elec.* A guard ring. **b** *Mach.* The plate which limits the amount of opening of an India-rubber disk valve. **c** *Metal.* A plate that closes the front of a cupola or blast furnace, containing the taphole.

guard'rail' (gärd'rāl'), *n.* **a** *Railroads.* A rail placed on the inside of a main rail, on bridges, at switches, etc., as a safeguard against derailment. **b** A railing to guard against accident or trespass. **c** A timber bolted outside a vessel along the plank-sheer to act as a fender.

guard'rail', *v. t.* To protect with a guardrail.

guard report. *Mil.* A formal report submitted by the commander of a guard to higher authority at the close of each period of guard duty.

guard ring. **a** *Elec.* An annular disk of metal surrounding and concentric with a plate in an air condenser, as in an electrometer, to prevent disturbance of the edge flux distribution. **b** A close-fitting finger ring worn above another, to keep the latter from slipping off; also, a ring worn within another ring, for the same purpose.

guard'room' (gärd'ro͞om'; 200), *n.* *Mil.* The room occupied by the guard during its term of duty; also, a room where prisoners are confined.

guard ship. *Nav.* **a** A vessel appointed to superintend marine affairs in a harbor, and also, in the British service, to receive seamen till they are received on their ships. **b** The ship of a squadron detailed for guard duty.

guards'man (gärdz'măn), *n.*; *pl.* -MEN (-mĕn). **1.** [From *guards*, gen. of *guard* + *man.*] One who guards; a guard.
2. [*guards*, pl., + *man.*] A member, either officer or private, of any military body called Guards.

guard'stone' (gärd'stōn'), *n.* Curbstone. *Rare.*

guard wire. *Elec.* A wire stretched transversely above a live wire, as a trolley wire, to prevent falling wires, as telegraph wires, from coming in contact with it.

Gua're·a (gwä'rē·ȧ; 142), *n.* [NL., fr. Sp. *guara.* See 2d GUARA.] *Bot.* A large genus of chiefly tropical American trees or shrubs of the mahogany family (Meliaceae) with pinnate leaves, small clustered flowers, and capsular fruits.

gua·ri'ba (gwä·rē'bȧ), *n.* [Pg. See WARINE; cf. ARABA monkey.] A howling monkey; esp., *Alouatta caraya* of Brazil.

gua'ri·nite (gwä'rĭ·nīt), *n.* [After G. *Guarini*, prof. in Naples.] *Mineral.* A calcium titanium silicate.

Guar·ne'ri·us (gwär·nā'rĭ·ŭs), *n.* Also **Guar·nie'ri** (gwär·nyâ'rē), sometimes **guar·ne'ri** (gwär·nā'rē). *Music.* A violin made by one of the famous Italian Guarnieri family in the 17th and 18th centuries.

Guar·nie'ri (gwär·nyâ'rē), *or* **Guar·nie'ri's** (-rēz), **bod'y.** [After G. *Guarnieri* (1856–1918), It. physician.] *Biol. & Med.* A minute cell inclusion (*cytoryctes*) found in cases of variola and vaccinia.

guar'ri (gwär'ĭ), *n.* [Hottentot.] The fruit of any of several African trees or shrubs of the genus *Euclea*, esp. *E. pseudebenus*, the Cape ebony.

gua'sa (gwä'sä), *n.* [Sp., of Taino origin.] A grouper (*Epinephelus guaza*) of Europe and the Brazilian coast; also, any of various allied fishes, as the spotted jewfish.

Guas·tal'line (gwäs·täl'ĭn; -ēn), *n.* *Eccl.* A member of a sisterhood, properly called ***Daughters of Mary***, established in Milan, about 1535, to manage an institute for the orphans of noble families; — so called from their founder, the Countess of Guastalla.

gua'tam·bú' (gwä'täm·bo͞o'), *n.* [Pg., fr. Tupi *guatambú.*] A Brazilian timber tree (*Aspidosperma tomentosa*); also, its bright, canary-yellow, rather soft wood.

Gua'te·ma'lan (gwä'tē·mä'lăn), *adj.* Of or pertaining to the Central American republic of Guatemala or its inhabitants. — *n.* A native or citizen of Guatemala.

Guatemalan ant. The kelep.

Gua'te·mal·tec'an (gwä'tē·mäl·tĕk'ăn), *n. & adj.* Guatemalan.

gua·ti've·re (gwä·tē'vâ·râ; 138), *n.* [Sp. *guatíbere*, prob. of Taino origin.] The niggerfish (*Cephalopholis fulvus*).

Gua·to' (gwä·tō'), *n.* An Indian of a tribe of southwestern Matto Grosso, Brazil. — *adj.* = GUATOAN.

Gua·to'an (-ăn), *adj.* Pertaining to or designating the South American Indian linguistic family comprising the Guatos. See GUATO.

Gua·tu'so (gwä·to͞o'sō; 138), *n.* An Indian of a Chibchan tribe of northwestern Costa Rica. See CHIBCHAN. — **Gua·tu'san** (-săn), *adj.*

Gua'ua·e'nok (gwä'wä·ā'nŏk), *n.* An Indian of a Kwakiutl tribe.

gua'va (gwä'vȧ), *n.* [Sp. *guayaba*, the fruit, *guayabo*, the tree, of Arawakan origin (Arawakan prob. fr. Cariban, and Cariban fr. Tupian); cf. Taino *guayavá* (Galibi *goyaba*, Tupi *guajava*).] **1.** **a** Any of several tropical American shrubs or small trees of the genus *Psidium*, esp. *P. guajava* and *P. cattleyanum* with large oblong leaves. **b** The fruit of these trees, which is about the size of a small apple, and is much used in making guava jelly, paste, and preserve.
2. **a** A West Indian tree (*Inga vera*) resembling the guamá and similarly used, esp. in Puerto Rico. **b** Any of several Central American trees of the genus *Inga*.

guava apple. The fruit of the guava.

gua'va·ber'ry (gwä'vȧ·bĕr'ĭ), *n.* A small West Indian tree (*Eugenia floribunda*); also, its edible fruit.

gua·vi'na (gwä·vē'nȧ; 98), *n.* [Sp. *guabina*, fr. Taino *guabina.*] Any of various gobies of the warmer parts of America, esp. *gobiomorus dormitor*, *Dormitator maculatus*, *Eleotris pisonis*, and allied species.

gua·ya'ba (gwä·yä'bä; 98; 138), *n.* [Sp. See GUAVA.] = GUAVA, 1 **a** & **b**.

gua'ya·bi' (gwä'yä·bē'; 98; 138), n. [Sp. *guayaibí*, *guayaví*, fr. Guarani *guayaví.*] A timber tree (*Patagonula americana*), family Ehretiaceae, of South America; also, its variegated hard wood.

gua·ya'bo (gwä·yä'bō; 98; 138), *n.* [Sp. See GUAVA.] The guava (tree).

Gua·ra'ny. Var. of GUARANI.
guard'a·ble, *adj.* See -ABLE.
guard'age, *n.* [Cf. OF. *wardage.*] Guardianship. *Obs.*
guar·deen' (gär·dēn'). Dial. var. of GUARDIAN. [See CAR, *n.*]
guard'fish'. Var. of GARFISH.
guard'i·ance, *n.* Guardianship. *Obs.*
guard'i·an·er, *n.* A guardian. *Obs.*
guard'i·an·ess, *n.*, *fem.* of GUARDIAN.
guard'i·an·less, *adj.* See -LESS.
guard'i·an·ship', *n.* See -SHIP.
guard'ing, *pres. part.* of GUARD.
— **guard'ing·ly**, *adv.*
guard'less, *adj.* See -LESS.
guard'like', *adj.* See -LIKE.
guard'ship, *n.* See -SHIP.
guar'ish, *v. t. & i.* [OF. *guarir*, *garir* (F. *guérir*).] To heal; convalesce. *Obs.*
Guar·rau' (gwär·rou'; wär·rou'). Var. of GUARAUNO.
Gua·ru'an. See GUARAUNO.
gua'ry, *n.* [Corn. *gwary.*] A Cornish miracle play. *Obs.*
gua'si·ma. Var. of GUACIMO.
Gua'te·ma'la grass (gwä'tē·mä'lȧ) = TEOSINTE.

teristics of a juristic act are: the ***essentialia***, or those facts without which it cannot exist; the ***naturalia***, or those always presumed to be part of the transaction; the ***accidentalia negotii***, or those which are not presumed and must therefore be proved. *T. E. Holland.*

ju·ris'ti·cal (jōō-rĭs'tĭ-kăl), *adj.* Juristic.

ju·ris'ti·cal·ly, *adv.* of JURISTIC, JURISTICAL.

juristic person. See PERSON, *n.*, 8.

‖**ju'ris utri·us'que doc'tor** (jōō'rĭs ū'trĭ-ŭs'kwē dŏk'tŏr). [L.] Doctor of both laws, that is, of civil and canon law.

Ju'ro·jin' (jōō'rō-jĭn'), *n.* [Jap.] One of the Seven Gods of Happiness, probably of Taoist origin. He is white-bearded, bestows longevity, and is associated with a deer.

ju'ror (jōōr'ẽr *or, esp. Brit.,* jôr'ẽr; 242), *n.* [OF. *jureor* one who takes oath (F. *jureur*), fr. L. *jurator* a swearer, fr. *jurare, jurari,* to swear. See JURY, *n.*] **1.** One of a number of men sworn to deliver a verdict as a body; specif., *Law,* a member of a jury, or one designated and summoned to serve on a jury.

"*Juror*" is uniformly used by the jurists most familiar with the subject as including persons designated or ordered to be summoned as *jurors.* For stronger reasons, it would include them after they are summoned and have appeared in court. 45 *C. C. A.* 443.

2. A false witness; a slanderer. *Obs.*

3. A member of any jury for awarding prizes, etc.

4. One who takes oath, esp. of allegiance. *Obs. exc. Hist.*

jurr (jûr), *n.* [Cf. Sw. *djur* animal, beast.] A low woman; a servant. *Scot.*

ju·ru'pa·ite (bōō-rōō'pȧ-īt), *n.* [From *Jurupa* Mts., Calif.] *Mineral.* A hydrous calcium magnesium silicate.

ju'ry (jōōr'ĭ *or, esp. Brit.,* jôr'ĭ; 242), *n.; pl.* JURIES (-ĭz). [OF. *jurée* an oath, juridical inquiry, fr. *jurer* to swear, fr. L. *jurare, jurari;* akin to L. *jus, juris,* right, law. See JUST, *adj.*; cf. JURAT, ABJURE, ADJURE, CONJURE, PERJURE.] **1.** *Law.* A body of men sworn to give a true answer, or verdict, upon some matter submitted to them; esp., a body of men selected according to law, impaneled and sworn to inquire into and try any matter of fact, and to render their true answer, or verdict, according to the evidence legally adduced. The bodies ordinarily meant by the term *jury* are the *grand jury,* the *coroner's jury,* and distinctively the *trial,* or *petit, jury* (see these terms); the term is now historically applied to various earlier bodies (see *Citation*). It is the province of the trial jury to determine the truth of the alleged facts in a civil case, and the guilt or innocence of the accused in a criminal case. See also STRUCK JURY, VERDICT; CHARGE, *n.*, 20.

The essence of the *jury* — if we use the term *jury* in the widest sense that can be given to it — seems to be this: a body of neighbors is summoned by some public officer to give upon oath a true answer to some question.... The English *jury* has been so highly prized by Englishmen, so often copied by foreigners, that its origin has been sought in many different directions. At the present day, however, there can be little doubt as to the quarter to which we ought to look. We must look to the Frankish inquisition, the prerogative rights of the Frankish kings. *Pollock & Mait.*

The decided weight of authority is that, where the right to trial by *jury* is secured by the constitution, the legislature cannot authorize a verdict by a less number than twelve; that the constitutional reservation implies a right to the concurrent judgment of that number, and any statute limiting it is unconstitutional and void. *Bouvier's Law Dict.*

2. A committee for determining relative merit or awarding prizes at an exhibition or competition; as, the *jury* on art.

3. a The body of dicasts of ancient Athens. See DICAST. **b** In Roman law, the judices acting in a trial. See JUDEX.

ju'ry, *adj.* [First in *jury mast,* prob. fr. OF. *ajurie* relief, help, fr. L. *adjutare* to help. See AID; cf. JERRY-BUILD.] *Naut.* For temporary use, usually in an emergency; as, a *jury* anchor, mast.

jury chancellor. *Scots Law.* The foreman of a jury.

ju'ry de me'di·e·ta'te lin'guae (dē mē'dĭ-ē-tā'tē lĭng'gwē). [See DE; MEDIETY; LINGUA.] Literally, jury of moiety of language; — a jury constituted half of aliens and half of citizens or subjects, which formerly might be claimed in a civil or criminal case by a party being alien born or a foreign merchant. It was abolished in England by 33 Vict. c. 14.

ju'ry-fix'er, *n.* One who bribes or intimidates a juryman, or who tries to do so. *Colloq., U. S.*

jury fixing. Bribery of a jury. *U. S.* — **ju'ry-fix'ing**, *adj.*

ju'ry·man (jōōr'ĭ-măn), *n.; pl.* -MEN (-mĕn). **1.** One who is impaneled on a jury, or who serves as a juror. See JUROR.

2. *Gr. Antiq.* Inaccurately, a dicast. See DICAST.

jury of inquest. A coroner's jury.

jury of matrons *or* **women.** *Law.* A jury of women formerly called to determine the question of pregnancy.

jury of the vicinage. *Law.* Formerly, a jury drawn from the neighborhood; now, one drawn from the political subdivision in which the court is held.

ju'ry-rigged', *adj.* [See JURY, *adj.*] *Naut.* Rigged for temporary service.

ju'ry-squar'ing, *n.* Jury fixing. *Australia.*

jury wheel. A revolving device from which the names of persons to serve as jurymen may be drawn by chance.

ju'ry·wom'an (jōōr'ĭ-wōōm'ăn), *n.; pl.* -WOMEN (-wĭm'ĕn; -ĭn; 119). A member of a jury of matrons.

‖**jus** (zhü), *n.* [F. See JUICE.] Juice; gravy.

‖**jus** (jŭs), *n.; pl.* JURES (jōō'rēz). [L. See JURY.] *Law.* Law; laws, collectively; a rule or principle of law; a law; also, legal right; legal power; — dist. in Roman law from *fas* and *lex.* *Jus* is chiefly used in phrases, mostly of Roman or Civil law, some of which (as ‖**jus pos·ses'si·o'nis** (pŏ-zĕsh'ĭ-ō'nĭs), law or right of possession, ‖**jus re·ten'ti·o'nis** (rē-tĕn'shĭ-ō'nĭs), right of retention) are near enough to corresponding English terms to be self-explaining.

‖**jus ac'cre·scen'di** (ăk'rē-sĕn'dī). [L.] *Rom. & Civil Law.* A right of accrual, as the right of survivorship.

‖**jus ad·mi'ni·stra'ti·o'nis** (ăd-mĭn'ĭ-strā'shĭ-ō'nĭs). [L.] *Scots Law.* The right of the husband to administrate his wife's affairs.

‖**jus ad rem** (ăd rĕm). [L.] *Civil & Canon Law.* A right to a thing, a jus in personam. See IN PERSONAM **a**.

‖**jus ae'di·li'ci·um** (ē'dĭ-lĭsh'ĭ-ŭm) *or* **ae·di'li·um** (ē-dĭl'ĭ-ŭm). [L.] See JUS HONORARIUM.

‖**jus al'ba·na'gi·i** (ăl'bȧ-nā'jĭ-ī). [ML.] The droit d'aubaine.

‖**jus an·ga'ri·ae** (ăng-gā'rĭ-ē). [L.] = ANGARY.

‖**jus ca·no'ni·cum** (kȧ-nŏn'ĭ-kŭm). [L.] = CANON LAW.

‖**jus ci·vi'le** (sĭ-vī'lē). [L.] = CIVIL LAW.

‖**jus com·mer'ci·i** (kŏ-mûr'shĭ-ī). [L.] See COMMERCIUM.

‖**jus com·mu'ne** (kŏ-mū'nē). [L.] = COMMON LAW.

‖**jus co·nu'bi·i** *or* **con·nu'bi·i** (kŏ-nū'bĭ-ī). [L.] **a** *Rom. Law.* The right to intermarry. **b** Loosely, in modern writers, the body of rules and conventions of a people or community governing intermarriage.

‖**jus de·li'be·ran'di** (dē-lĭb'ẽr-ăn'dī). [L., right of deliberating.] *Civil Law.* The right granted to an heir to take a certain time (*tempus deliberandi*) to decide whether to accept the inheritance or not (see INHERITANCE). This right formerly existed in Scots law; the time was at first a year (‖*annus deliberandi*), curtailed in 1858 and 1860 to six months; the right no longer exists, since the heir is no longer liable for the debts of his ancestor.

‖**jus de'vo·lu'tum** (jŭs dĕv'ō-lū'tŭm). [L.] *Scots Law.* A right (to present to a benefice) that has devolved upon the presbytery upon failure of presentation by (formerly) the patron or (now) the congregation.

‖**jus dis'po·nen'di** (dĭs'pō-nĕn'dī). [L.] Right of disposal, as of goods pending fulfillment of a condition which would vest a right to them in another.

‖**jus di·vi'num** (dĭ-vī'nŭm). [L.] Divine law or right.

‖**jus ec·cle'si·as'ti·cum** (ĕ-klē'zĭ-ăs'tĭ-kŭm). [L.] The laws collectively by which a state-established church is governed. It includes canons made by ecclesiastical authority and civil laws and customs which affect the church.

‖**jus e'di·cen'di** (ē'dĭ-sĕn'dī). [L.] See PRAETORIAN LAW.

‖**jus et nor'ma lo·quen'di** (ĕt nôr'mȧ lō-kwĕn'dī). [L.] The law and rule of speech.

‖**jus fe'ti·a'le** *or* **fe'ci·a'le** (fē'shĭ-ā'lē). [L.] The fetial law.

‖**jus fru·en'di** (frōō-ĕn'dī). [L.] *Rom. Law.* The right of enjoyment of the produce of another's estate. See USUFRUCT.

‖**jus gen'ti·um** (jĕn'shĭ-ŭm). [L., law of aliens, nations.] *Law.* **a** *Rom. Law.* The body of legal rules for the government of aliens subject to Rome and of the intercourse of Roman citizens with aliens. **b** *Now Rare.* In the Middle Ages, the law of nations, or international law.

‖**jus gla'di·i** (glăd'ĭ-ī). [L.] Right of the sword; the right to put to death; i. e., executory or supreme jurisdiction.

‖**jus ho'no·ra'ri·um** (hŏn'ō-rā'rĭ-ŭm). [L.] *Rom. Law.* The law established by the edicts of the magistrates, consisting chiefly of the praetorian law (‖**jus prae·to'ri·um** [prē-tō'rĭ-ŭm]) and the law of the curule aediles (‖**jus ae·di'li·um** [ē-dĭl'ĭ-ŭm] or **ae'di·li'ci·um** [ē'dĭ-lĭsh'ĭ-ŭm]).

‖**jus ho·no'rum** (hŏ-nō'rŭm). [L.] *Rom. Law.* The right to hold honors, that is, offices of public trust.

‖**ju'si** (hōō'sē; 162), *n.; pl.* JUSIS (-sēz). Also **hu'si**. [Tag.] A delicate fabric for dresses, etc., made in the Philippine Islands, of silk, or of a mixture of silk and hemp or piña fiber.

‖**jus in per·so'nam** (jŭs ĭn pẽr-sō'năm). [L.] A right in personam.

‖**jus in re** (rē). [L.] A right in rem. See IN REM.

‖**jus in rem** (rĕm). [L.] A right in rem. See IN REM.

‖**jus in'ter gen'tes** (ĭn'tẽr jĕn'tēz). [L.] International law.

‖**jus'ju·ran'dum** (jŭs'jōō-răn'dŭm), *n.; pl.* -DA (-dȧ). [L.] *Rom. Law.* An oath.

‖**jus La'ti·i** (lā'shĭ-ī). [L.] *Rom. Law.* The right of a Latin, that is, of a person who has certain rights of or to Roman citizenship. Prior to the bestowal of full Roman citizenship on all Latium many Latin towns and colonies enjoyed many, if not all, of the private rights of Roman citizenship. After the admission of all Latins to full citizenship, the same right (often called also ***Latium***) was extended under the name *jus Latii* to remoter subjects not citizens; there being two degrees, called the ***majus Latium***, entitling the holder of a local magistracy to citizenship for himself, parents, children, and wife, and the ***minus Latium***, entitling the holder of a magistracy to citizenship for himself alone.

‖**jus ma·ri'ti** (jŭs mȧ-rī'tī). [L.] The right of the husband in the goods of his wife; specif., *Scots Law,* the right of a husband (under a marriage contracted prior to the 18th of July, 1881) to enjoy and dispose of all the community goods.

‖**jus na·tu'rae** (nȧ-tū'rē) *or* **na'tu·ra'le** (năt'ū-rā'lē). [L.] = NATURAL LAW.

‖**jus pa·scen'di** (pȧ-sĕn'dī). [L.] See SERVITUDE.

‖**jus pa'tro·na'tus** (păt'rō-nā'tŭs). [L.] The right of a patron; patronage.

‖**jus per'so·na'rum** (pûr'sō-nā'rŭm). [L.] **a** The law of persons; — short for JUS QUOD AD PERSONAS PERTINET. **b** Erroneously, the rights of persons.

‖**jus pig'no·ris** (pĭg'nō-rĭs). [L.] Right or law of pledge.

‖**jus pos·ses'si·o'nis** (pŏ-zĕsh'ĭ-ō'nĭs). [L.] *Law.* See JUS.

‖**jus pos'si·den'di** (pŏs'ĭ-dĕn'dī). [L.] The right of having possession of property.

‖**jus post'li·mi'ni·i** (pōst'lĭ-mĭn'ĭ-ī). [L.] *Roman Law & Internat. Law.* See POSTLIMINIUM.

‖**jus prae·to'ri·um** (prē-tō'rĭ-ŭm). [L.] See JUS HONORARIUM, PRAETORIAN LAW.

‖**jus pri'mae noc'tis** (prī'mē nŏk'tĭs). [L.] The right of a feudal lord to the virginity of a female vassal on her wedding night. Cf. DROIT DU SEIGNEUR. In later times it was commuted to a money payment.

‖**jus pro·pri'e·ta'tis** (prō-prī'ē-tā'tĭs). [L.] Right of property; — disting. from ***jus pos·ses'si·o'nis***. See JUS.

‖**jus pu'bli·cum** (pŭb'lĭ-kŭm). [L.] Public law, including in Roman law the criminal and sacred law.

‖**jus quae·si'tum** (kwē-sī'tŭm). [L.] A right to demand or recover.

‖**jus'qu' au' bout'** (zhüs'kō' bōō'). [F.] To the very end.

jus'qu'au'bou'tisme (-bōō'tĭz'm). [A British coinage from French.] Radical policy; a willingness to go to extremes.

jus'qu'au'bou'tist (-bōō'tĭst), **jus'qu'au'bou'tiste'** (-bōō'tēst'). [A British coinage.] A bitter-ender; radical.

‖**jus quod ad per·so'nas per'ti·net** (kwŏd ăd pẽr-sō'năs pûr'tĭ-nĕt). [L.] The law that pertains to persons, that is, the law as determined by varieties of differences in the status of persons.

‖**jus quod ad res per'ti·net** (ăd rēz). [L.] The law that pertains to things, that is, the law as determined by the variations, or changes in the nature, of things.

‖**jus re·lic'tae** (rē-lĭk'tē). [L.] *Scots Law.* Lit., right of the widow, i. e., the widow's right to a share in the goods in communion on her husband's decease, being one third if there be children, otherwise one half.

‖**jus re·lic'ti** (rē-lĭk'tī). [L.] *Scots Law.* Lit., the right of the widower, i. e., his right in the separate movable estate of his deceased wife, being now (under the Married Women's Property Act, 1881) one third in case of surviving children, otherwise one half, as in case of the jus relictae, if no marriage contract interferes, but formerly two thirds in case of surviving children, otherwise one half.

‖**jus re'rum** (rē'rŭm). [L.] **a** Short for JUS QUOD AD RES PERTINET. **b** Erroneously, the rights of things.

‖**jus re'spon·den'di** (rē'spŏn-dĕn'dī). [L.] *Rom. Law.* The authority conferred on certain jurists of delivering legal opinions that should have a binding force as law.

‖**jus re·ten'ti·o'nis** (rē-tĕn'shĭ-ō'nĭs). [L.] *Law.* See JUS.

‖**jus re·trac'tus** (rē-trăk'tŭs). [L.] Literally, right of retraction; — used specif., *Civil Law,* of: **a** The right of certain relatives of one who has sold immovable property to repurchase it by pre-emption. **b** The right of a debtor on sale of his debt by his creditor to a third person to redeem it within a year for the price paid by the purchaser.

‖**jus san'gui·nis** (jŭs săng'gwĭ-nĭs). [L.] Literally, law or right of blood; — used of the rule that the citizenship of the child is determined by the citizenship of its parents.

‖**jus scrip'tum** (skrĭp'tŭm). [L.] Written law.

jus'sel (jŭs'ĕl; -'l), *n.* Also **jus'sal, jus'shell.** [OF. *jussel* broth, soup, fr. LL. *juscellum,* dim. of L. *jusculum,* dim. of *jus.* See JUICE.] *Cookery.* A hodgepodge. *Obs.*

Jus'si·ae'a (jŭs'ĭ-ē'ȧ), *n.* [NL., after Bernard de *Jussieu,* French botanist.] *Bot.* A large genus of yellow-flowered herbs (family Onagraceae); the primrose willows.

Jus'si·ae'an (-ăn), **Jus'si·eu'an** (-ū'ăn), *adj.* Also **Jus'si·e'an.** Pertaining to Bernard de Jussieu (1699–1777), or Antoine Laurent de Jussieu (1748–1836), eminent French botanists; as, the *Jussiaean* classification.

jus'sion (jŭsh'ŭn), *n.* [F., fr. LL. *jussio.*] Command. *R.*

jus'sive (jŭs'ĭv), *adj.* [L. *jubere, jussum,* to command.] Expressing, or having the effect of, a command. — *n.* A word, form, case, or mood, expressing command. *BothGram.*

‖**jus so'li** (jŭs sō'lī). [L.] Law or right of the soil or ground; — used of the rule of law that determines the allegiance or citizenship of a child by the place of its birth. This is the rule of the common law. See ALLEGIANCE.

jus'so·ry (jŭs'ō-rĭ), *adj.* Of or pertaining to command. *R.*

just (jŭst), *adj.* [OF. *juste,* fr. L. *justus,* fr. *jus* right, law, justice; akin to Skr. *yos* welfare, Alban. *je* permission, leave, OIr. *(h)uisse* right, just, and perh. to L. *jungere* to bind; basic idea: tie, obligation. See JOIN; cf. ADJUST, INJURY, JUDGE, JURISDICTION, JURY.] **1.** Conforming to the spiritual law; righteous; specif., righteous before God.

How should man be *just* with God? *Job* ix. 2.

2. Righteous, or conforming to what is righteous, in the dealing of one man with another; equitable in action or judgment; impartial; hence, as of punishments, merited.

Just balances, *just* weights . . . shall ye have. *Lev.* xix. 36.

3. Conforming to, or consonant with, what is legal or lawful; legally right; as, a *just* title, proceeding.

4. Not transgressing the requirement of truth or propriety; conformed to the truth of things, or to a proper standard; well-founded; as, a *just* statement, inference.

Just of thy word, in every thought sincere. *Pope.*

His taste of books is a little too *just* for the age. *Steele.*

5. Agreeing closely or exactly with a copy, pattern, model, description, or the like; exact; accurate.

I am apt to think his calculation *just* to a minute. *Swift.*

6. In obsolete uses: Exact or precise; well fitted; suitable; normal; regular; even; complete.

Syn. — Equitable, upright, unbiased; legitimate. Cf. FAIR.

Ant. — Unfair, partial, prejudiced; unlawful; undeserved.

just (jŭst), *adv.* **1.** Precisely; exactly; — in place, time, degree, number, quantity, resemblance, or other matter of correspondence or relation; as, it was placed *just* so.

And having *just* enough, not covet more. *Dryden.*

2. Closely; nearly; almost.

Just at the point of death. *Sir W. Temple.*

3. Precisely at the time referred to or implied; now, or but a moment ago; as, one *just* dead; as he said *just* now.

4. Barely; by a very small space or time; as, *just* too late.

5. Simply; quite; — intensive; as, *just* tired out. *Colloq.*

just, *v. t.* To adjust. *Rare.*

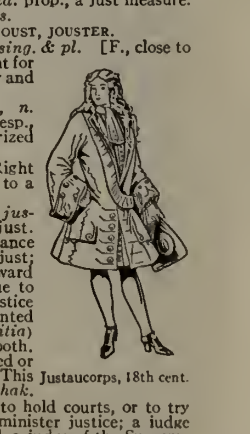
just, *n.* [OF. *juste,* fr. ML. *justa:* prop., a just measure. See JUST, *adj.*] A pot or jug. *Obs.*

just, just'er (jŭs'tẽr). Vars. of JOUST, JOUSTER.

‖**just'au'corps'** (zhüs'tō'kôr'), *n. sing. & pl.* [F., close to the body.] A tight-fitting garment for the body; esp., in the 17th century and later, a close-fitting doublet.

‖**juste'-mi'lieu'** (zhüst'mē'lyû'), *n.* [F.] The just or golden mean; esp., in politics, government characterized by moderation and compromise.

‖**jus ter'ti·i** (jŭs tûr'shĭ-ī). [L.] Right of a third person or stranger, as to a contract.



Justaucorps, 18th cent.

jus'tice (jŭs'tĭs), *n.* [OF. *justice, justise,* fr. L. *justitia,* fr. *justus* just. See JUST, *adj.*] **1.** The maintenance or administration of that which is just; just treatment; also, merited reward or punishment; that which is due to one's conduct or motives. Justice when personified is usually represented as a goddess (the Roman *Justitia*) holding a sword or scales, often both. Her eyes are sometimes blindfolded or closed in token of impartiality. "This even-handed *justice.*" *Shak.*

2. A person duly commissioned to hold courts, or to try and decide controversies and administer justice; a judge or magistrate; esp.: **a** In England, a judge of the Supreme Court of Judicature, formerly of the King's Bench, Common Pleas, or Exchequer; in the United States, a judge of a common-law court or a superior court of record. See PRECEDENCE; *Forms of Address,* in Appendix. **b** A justice of the peace; an inferior magistrate; as, a police *justice.*

3. Administration of law; the establishment or determination of rights according to the rules of law or equity.

4. The principle of rectitude and just dealing of men with each other; also, conformity to it; integrity; rectitude; — one of the cardinal virtues. Ideal justice was conceived by Plato to be obtained in perfect social harmony in beneficent activities. Aristotle held justice to be the practice of virtue toward others; he distinguished ***distributive justice***, or distribution according to merit, from ***corrective justice***, designed to rectify errors of distribution, and *equity* from mere *legality.* In modern ethics, the conceptions of *liberty* and *equality* as essential principles of justice are supplemented by the evolutional conception of justice as determined by social inheritance, esp. as involving *natural* expectations of human conduct. From ***conservative justice***, based on natural expectation, Sidgwick has distinguished an ***ideal justice***, based upon respect for the rights of the ideal member of an ideal society.

5. Rightfulness; as, the *justice* of a cause.

6. Conformity to truth, fact, or right reason; rightfulness.

7. *Obs.* **a** A court of justice, or its jurisdiction; also, punishment inflicted by law. **b** Infliction of punishment, esp. capital punishment; also, the place or instrument, as a gallows. **c** Jurisdiction. **d** Righteousness.

Syn. — JUSTICE, EQUITY. In ordinary usage (for legal distinctions, see defs.) JUSTICE implies the strict and judicial rendering of what is due; EQUITY emphasizes rather the idea of fairness or evenhanded impartiality; as, "*Justice* is grave, decorous, and in its punishments rather seems to submit to a necessity than to make a choice" (*Burke*); "The plain confidence of an honest servant in the *equity* of a discerning master" (*id.*). Cf. HONESTY, RECTITUDE, FAIR.

jur'nal, jur'nal·ism, jur'nal·ist, jur'ney, jur'neyd. Journal, etc. *Ref. Sp.*

Ju'ruk (yōō'rŏŏk). Var. of YURUK.

Ju'ru·na' (zhōō'rōō-nä'). Var. of YURUNA.

Ju·ru'pa·ry' (zhōō-rōō'pȧ-rē'). Var. of YURUPARY.

ju'ry·less, *adj.* See -LESS.

ju'ry-shy', *adj.* See -SHY.

Ju'shab-he'sed (jōō'shăb-hē'sĕd). *Bib.*

jus'lik. Var. of YUZLUK.

just'en, *v. t.* [From JUST, *adj.*] To adjust. *Oxf. E. D.*

justening. † JOUSTING.

jus'ti·ca'tiv. Justicative. *Ref. Sp.*

MEDALS AND ORDERS OF HONOR AND OF MERIT

CROIX DE GUERRE
WITH PALMS
BELGIUM

MILITARY CROSS
BELGIUM

MEDAL OF
KING ALBERT
BELGIUM

MEDAL OF
FRENCH RECOGNITION
FRANCE

MEDAILLE
MILITAIRE
FRANCE

CROIX DE GUERRE
WITH PALM
FRANCE

MILITARY CROSS
GREAT BRITAIN

DISTINGUISHED
CONDUCT MEDAL
GREAT BRITAIN

VICTORIA CROSS
GREAT BRITAIN

DISTINGUISHED
SERVICE ORDER
GREAT BRITAIN

MILITARY MEDAL
GREAT BRITAIN

DISTINGUISHED
FLYING CROSS
GREAT BRITAIN

MEDAL FOR VALOR
ITALY

CROSS OF MERIT
ITALY

IRON CROSS
PRUSSIA

MEDAL OF HONOR
ARMY
UNITED STATES

MEDAL OF HONOR
NAVY
UNITED STATES

DISTINGUISHED SERVICE
MEDAL, ARMY
UNITED STATES

DISTINGUISHED SERVICE
MEDAL, NAVY
UNITED STATES

DISTINGUISHED
SERVICE CROSS
UNITED STATES

NAVY CROSS
UNITED STATES

DISTINGUISHED
FLYING CROSS
UNITED STATES

SILVER STAR MEDAL
ARMY
UNITED STATES

ORDER OF
THE PURPLE HEART
UNITED STATES

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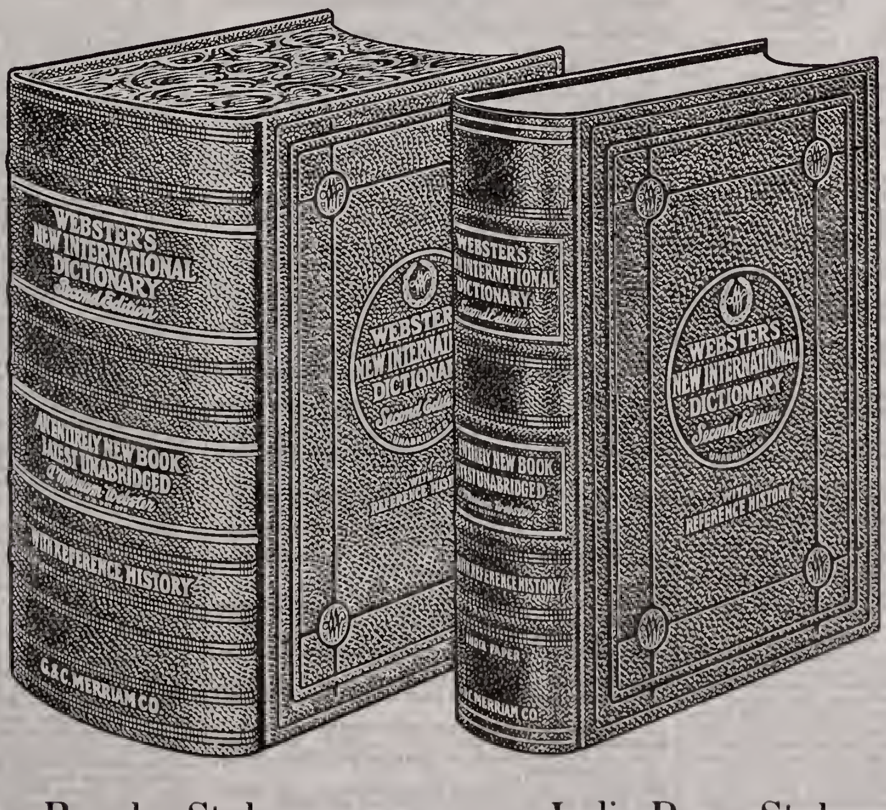

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bhai'ya·cha'ra (bī'yȧ-chä'rä; 99), **bhai'a·cha'ra** (bī'ȧ-), *or* **-cha'ri** (-chä'rē), *n.* [Hind. *bhaīyā cārah, bhāī-cārā.*] *Hindu Law.* Village lands, property, or privileges held so that the proprietors hold in severalty and their rights are determined by what they have actually in possession, but the village remains liable in solido for arrears of chargeable revenues. Cf. PATTIDARI, ZAMINDARI.
bhak'ta (bŭk'tȧ; 99), *n.* [Skr.] *Hindu Relig.* A religious devotee; a worshiper. Cf. BHAKTI. — **bhak'ta**, *adj.*
bhak'ti (bŭk'tĭ; 99), *n.* [Skr.] Religious devotion; love directed toward a personal deity.
bha'lu' (bä'lōō'; 99), *n.* [Hind. *bhālū.* See 3d BEAR.] A bear; specif.: **a** The sloth bear. **b** The black bear (*Ursus thibetanus*) of the Himalayas.
bhan'dar (bän'där; 99), *n.* [Hind. *bhāṇḍār.*] A storehouse for merchandise; a store; also, a library.
bhan'dar·i (-ē), *n.* [Hind. *bhāṇḍārī.*] One who has charge of a store; also, a treasurer, steward, etc.
bhang, bang (băng), *n.* [Hind. *bhāng, bhang,* fr. Skr. *bhaṅgā* hemp; cf. Per. *bang.*] **a** *India.* The hemp plant. **b** A narcotic and intoxicant made esp. in India of the dried leaves and young twigs of the hemp. Bhang is dark brownish-green, has little taste and a faint, heavy odor, and is used for chewing or smoking, as a drink when infused in water, and as an ingredient in majoon.
Bhar (bŭr), *n.* One of a Kolarian people of northern India.
bhar'al (bŭr'ăl), *n.* A wild sheep (*Pseudois nahura*) with down-curved horns, of the Himalayas and Tibet.
Bhar'a·ta (bŭr'ȧ-tȧ; 99), *n.* [Skr.] **1.** Any of various Indian sages and heroes; specif.: **a** In the *Ramayana*, Rama's younger half brother, who acts as viceroy during Rama's exile. **b** In the *Mahabharata*, a prince from whom were descended the Pandavas, or, hence, Bharatas.
2. a A descendant of Bharata. **b** An inhabitant of India. **c** India. **d** The *Mahabharata.*
bhat (bät), *n.* [Hind. *bhāṭ.*] *India.* **a** A minstrel, or family bard. **b** A learned man; — applied as a title to some Maratha Brahmans. **c** A go-between in matrimonial affairs.
bha'va (bŭv'ȧ), *n.* [Skr. *bhava.*] *Hindu Philos.* Becoming, as distinguished from being.
bhees'ty, bhees'tie (bēs'tĭ), *n.* [Hind. *bhīstī,* fr. Per. *bihishtī,* lit., one from heaven.] A water carrier, as to a household or a regiment. He carries the water in a mussuk, or skin, usually slung on his back. *India.*

Bheesty.

bhik'ku (bĭk'ōō; 99), *n.* [Pali.] A Buddhist monk, mendicant friar, or priest. Cf. BONZE.
bhik'shu (bĭk'shōō), *n.* [Skr. *bhikṣu.*] A Brahmanical or Buddhist mendicant ascetic, or wandering friar. Cf. BHIKKU, GELONG.
Bhil (bēl; 99), *n.* [Hind. *Bhīl,* name of a mountain people, fr. Skr. *Bhilla.*] One of a numerous low-caste primitive tribe in Rajputana, Bombay, and Central India.
Bhoj'pu·ri (bōj'pōō-rē; 99), *n.* The language of Bhojpur, in the district of Shahabad, Bihar, India. See INDO-EUROPEAN LANGUAGES, *Table.*
bhoo'sa (bōō'sä; 99), *n.* [Hind. *bhūsā,* fr. Skr. *busa.*] The broken straw and husks from the threshing floor, used as food for cattle; chaff. *India.*
Bho'ti·ya (bō'tĭ-yä; 99), **Bho'ti·a** (-tĭ-ä), *n.* Collectively, the peoples of southern Tibet.
b'hoy (b'hoi), *n.* [Dial. pron. of *boy.*] A gang member; a rowdy. *Slang, U. S.*
Bhrig'u (brĭg'ōō; 99), *n.* [Skr. *Bhṛgu.*] *Vedic Myth.* One of the ten maharshis. Also, *pl.,* his descendants, beings who find fire and bring it to men.
Bhu'mi De'vi (bōō'mĭ dā'vē; 99). [Skr. *bhūmi* earth + *devī* goddess.] *Hindu Myth.* The earth goddess, one of the two consorts of Vishnu.
Bhu'mij (bōō'mĭj; 99), *n.* A branch of the Munda tribes of Chota Nagpur, India.
bhun'gi (bŭng'gē; 99), *n. m.,* **bhun'gi·ni** (-gē-nĭ), *f.* [Hind. *bhaṅgī.*] A Hindu sweeper or scavenger; a mehtar (sense 2); — called also *bungy.*
bhut (bōōt; 99), *n.* [Hind. *bhūt,* Skr. *bhuta,* prop., a being.] Among the animistic Dravidians of India, a ghost; also, a demon or goblin.
Bhu·tan' cy'press (bōō-tän'). A lofty East Indian cypress (*Cupressus duclouxiana*), venerated by the natives.
Bhu'tan·ese' (bōō'tăn-ēz'; -ēs'), *n. sing. & pl.* A native of Bhutan, northern India, belonging to the Tibetan Mongolians. Also, the Tibetan dialect prevalent in Bhutan. — **Bhu'tan·ese'**, *adj.*
Bhu·ta'ni (bōō-tä'nē), *n. & adj.* Bhutanese.
Bhu·tan' pine (bōō-tän'). A Himalayan pine (*Pinus excelsa*), resembling the white pine of America, but very resinous.
bhu'ta·ta·tha·ta' (bōō'tȧ-tȧ-tȧ-tä'; 99), *n.* [Skr. *bhūtatathatā.*] *Buddhism.* Essential being. See SUCHNESS.
bhut'-bal'i (bōōt'bŭl'ĭ; 99), *n.* [Skr. *bali* offering. See BHUT.] Offering to malignant spirits.
Bhu'ti·a (bōō'tĭ-ȧ), *n.* A native of Bhutan; a Bhutanese. — **Bhu'ti·a**, *adj.*
bi-. For various words formerly spelled *bi-*, see BE-.
bi- (bī-). [L.; akin to *bis* twice, and E. *two.* See BIS-, TWO; cf. DI-, DIS-, BIN-.] **1.** A prefix, forming adjectives and their derivative nouns, denoting in general *two,* and specif.: **a** *Two, twice, doubly,* as in *bi*dentate, two-toothed; *bi*ternate, doubly ternate; *bi*serrate, doubly serrate; *bi*convex, doubly convex; also, *showing* or *combining two different* or *distinguishable elements,* as in *bi*racial, *bi*party. **b** (*Lasting* or *occurring every*) *two,* as in *bi*ennial, appearing every two years; *bi*weekly; *bi*monthly. **c** (*Occurring* or *coming*) *twice,* as in *bi*weekly, twice a week. In this sense equiv. to *semi-*, which is preferable to avoid ambiguity.
2. A prefix, forming nouns and verbs, meaning *of* or *into two parts,* as in *bi*cycle, *bi*sect.
3. *Anat.* Often specif. indicating *connection with,* or *relation to, each of two symmetrically paired parts* or *points* (indicated), as in *bi*auricular, *bi*-iliac, etc.
4. *Chem.* Denoting *the presence of two atoms* or *equivalents* of the constituent to the name of which it is prefixed, or *the presence* of this constituent *in double the proportion of the other component,* or *in double the ordinary proportion,* as in *bi*carbonate, *bi*sulphate, *bi*tartrate (acid salts formed with twice as much acid as is required for a neutral salt), *bi*chloride, *bi*borate, etc. *Bi-* and *di-* are sometimes interchangeable, but *di-* is now usually preferred in most senses. In organic chemistry *bi-* is used esp. to denote the doubling of a radical or molecule, as in *bi*phenyl.
-bi·a (-bĭ-ȧ). A plural combining form, from Greek *bios,* mode of living, used in classificational names in *Biol., Bot.,* and *Zool.,* as in aero*bia.* Corresponding singulars are formed in *-bium, -bius.*
bi·ac'e·tyl (bī-ăs'ē-tĭl; -tēl), *n.* [*bi-* + *acetyl.*] *Chem.* A liquid, $(CH_3CO)_2$, with an odor like that of quinone; 2,3-butane-dione. Its molecule is the acetyl group, doubled.
bi'a·cet'y·lene (bī'ȧ-sĕt'ĭ-lēn), *n.* [*bi-* + *acetylene.*] *Chem.* A gaseous hydrocarbon, HC:C.C:CH, of peculiar odor, containing two acetylene linkages (triple bonds); — called also *butadiyne.*
bi'a·cu'mi·nate (bī'ȧ-kū'mĭ-nāt), *adj.* [See BI-.] *Bot.* Doubly acuminate.
bi'a·cu·ru' (bī'ȧ-kōō-rōō'), *n.* [Tupi *guaycurú, baycurú.*] The powerfully astringent root of a South American herb (*Limonium brasiliense*); also, the plant itself.
bi·a'late (bī-ā'lāt), *adj.* Having two wings.
bi·al'lyl (bī-ăl'ĭl), *n.* [*bi-* + *allyl.*] *Chem.* A pungent liquid hydrocarbon, C_6H_{10}, consisting of two united allyl radicals; 1,5-hexadiene. It is a diolefin.
bi'al·ve'o·lar (bī'ăl-vē'ō-lẽr; bī-ăl'vē-ō-lẽr), *adj.* [See BI-, 3.] Of or pert. to the two sides of the alveolar processes.
Bi·an'ca (bĭ-ăng'kȧ; *It.* byäng'kä), *n.* [It.] Blanch; — feminine proper name. *Bianca* is the name of many characters, esp. in Elizabethan and Jacobean dramas; specif. of: **a** A daughter of Baptista in Shakespeare's *Taming of the Shrew,* who, in Beaumont and Fletcher's *The Tamer Tamed,* vivaciously aids and abets Petruchio's second wife Katharine. **b** In Shakespeare's *Othello,* Cassio's mistress.
Bian'chi (byäng'kē), *n. pl.* [It., Whites.] *It. Hist.* **a** A political faction of the Guelphs in Tuscany about 1300, opposed to the Neri, or Blacks. In Florence the Neri, who accused the Bianchi of being Ghibellines and enemies of the Pope and France, were victorious, and hundreds of the Bianchi, among them Dante, were exiled. **b** In Rome, the anticlericals, who support the Italian monarchy.
bi·an'chite (bĭ-ăng'kīt), *n.* [Prob. fr. It. *bianco* white + *-ite.*] *Mineral.* A rare hydrous sulphate of iron and zinc occurring as white crystalline crusts.
bi·an'gu·lar (bī-ăng'gū-lẽr), *adj. Math.* Having two angles.
bi·an'gu·late (-lāt), **bi·an'gu·lat'ed** (-lāt'ĕd; -ĭd; 119), *adj.* Biangular.
bi·an'gu·lous (-lŭs), *adj.* Biangular. *Rare.*
bi'a·nis'i·dine (bī'ȧ-nĭs'ĭ-dēn; -dĭn; 157), *n.* Also **-din.** [*bi-* + *anisidine.*] *Chem.* A compound, $C_{14}H_{16}N_2O_2$, the structure of which is like that of anisidine, doubled. 4,4'-Bi-*o*-anisidine is a crystalline solid used in the manufacture of many azo dyes.
bi·an'nu·al (bī-ăn'ū-ăl), *adj.* [*bi-* + *annual.*] Occurring twice a year. Cf. BIENNIAL. — **bi·an'nu·al·ly**, *adv.*
bi'arch·y (bī'är-kĭ), *n.; pl.* BIARCHIES (-kĭz). [*bi-* + *-archy.*] Government by two persons.
bi·ar'cu·ate (bī-är'kū-āt), **bi·ar'cu·at'ed** (-āt'ĕd; -ĭd; 119), *adj.* Twice arcuate, or curved.
bi'ar·tic'u·lar (bī'är-tĭk'ū-lẽr), *adj.* *Anat.* Of or pertaining to two joints.
bi'ar·tic'u·late (-lāt), **bi'ar·tic'u·lat'ed** (-lāt'ĕd; -ĭd; 119), *adj.* [*bi-* + *articulate.*] *Bot. & Zool.* Having, or consisting of, two joints.
bi'as (bī'ăs), *n.; pl.* BIASES (-ĕz; -ĭz; 119). [F. *biais,* of uncert. origin.] **1.** A diagonal line of seam, cut, or stitching across a fabric.
2. A temperamental inclination; propensity or prepossession toward an object or view, not leaving the mind indifferent; bent; tendency; prejudice.
The violent political *bias* of childhood. *Henry Adams.*
3. Established or habitual procedure; settled way or course. *Obs. exc. Dial.*
4. A determining influence or impulse. *Archaic.*
5. *Bowls.* **a** The peculiarity in construction or shape of a bowl causing it to swerve when rolled on the green. **b** The tendency of the bowl to swerve, or the impulse causing this tendency; also, the swerve, or curved path, of the bowl.
6. *Elec.* The direct voltage in the grid circuit of an electron tube.
Syn. — See BENT. **Ant.** — See ANTIPATHY.
— ***on the bias.*** Diagonally; obliquely to the texture (of cloth).
bi'as (bī'ăs), *adj.* **1.** Diagonal; slanting; diagonal to the texture or outline; — now used chiefly of fabrics.
2. Oblique; swelled or weighted on one side. *Obs. Shak.*
bi'as, *adv.* In a slanting manner; obliquely; diagonally; as, to cut cloth *bias;* hence, awry; amiss.
The wide world runs *bias.* *Herbert.*
bi'as, *v. t.;* BI'ASED or BI'ASSED (bī'ăst); BI'AS·ING or BI'AS·SING. To give a bias to; to incline to one side; to give a particular direction to; to influence; prejudice; prepossess; as, he was *biased* by his ignorance.
bi'as·ter'ic (bī'ăs-tĕr'ĭk), *adj.* [See BI-; ASTERION.] *Craniol.* Connecting the two asterions.
bi'as·wise' (bī'ăs-wīz'), *adv.* Obliquely; askew.
bi'a·tom'ic (bī'ȧ-tŏm'ĭk), *adj.* [See BI-.] *Chem.* Diatomic.
bi'au·ric'u·lar (bī'ô-rĭk'ū-lẽr), *adj.* [*bi-* + *auricular.*] *Anat.* **a** Having two auricles. **b** Of or pertaining to the two auditory openings; joining the two auricular points; as, the *biauricular* diameter of the skull.
bi'au·ric'u·late (-lāt), *adj.* [*bi-* + *auriculate.*] **1.** *Anat.* Having two auricles, as the heart of mammals, birds, and reptiles.
2. *Bot.* Having two earlike projections at the base, as a leaf.
bi·ax'i·al (bī-ăk'sĭ-ăl), *adj.* [*bi-* + *axial.*] Having two axes; as, *biaxial* crystals. — **bi·ax'i·al'i·ty** (-ăk'sĭ-ăl'ĭ-tĭ), *n.* — **bi·ax'i·al·ly**, *adv.*
bib (bĭb), *v. t. & i.;* BIBBED (bĭbd); BIB'BING. [L. *bibere.* See BEVERAGE; cf. IMBIBE.] To drink; sip; tipple.
This miller hath . . . *bibbed* ale. *Chaucer.*
bib (bĭb), *n.* [From BIB, *v.,* because the *bib* receives the drink that the child slavers from the mouth.] **1.** A small piece of cloth worn over the breast, esp. by children, to protect the clothes; also, a similarly protecting piece, usually forming the upper part of an apron.
2. A small codlike fish (*Gadus luscus*) of European coasts, having a distensible membrane, like a bib, on the head.
bib (bĭb). Short for BIB NOZZLE.
bi·ba'cious (bĭ-bā'shŭs; bī-), *adj.* [L. *bibax, bibacis,* fr. *bibere.* See 1st BIB.] Addicted to drinking; bibulous.
bi·bac'i·ty (bĭ-băs'ĭ-tĭ; bī-), *n.* Addiction to drink; tippling.
bib and tucker. Clothes; dress. *Colloq.*
bi·ba'tion (bĭ-bā'shŭn; bī-), *n.* Act of bibbing.
bibb (bĭb), *n.* *Naut.* A side piece of timber bolted to the hounds of a mast to support the trestletrees.
bib'ber (bĭb'ẽr), *n.* One addicted to drinking; a tippler; — chiefly used in composition, as in wine*bibber.*
bib'ble (bĭb''l), *v. t. & i.;* BIB'BLED (-'ld); BIB'BLING (-lĭng). [Freq. of BIB, *v.*] **1.** To drink often or much. *Now Dial.*
2. To drink or eat with a dabbling noise, as a duck.
bib'ble–bab'ble, *n.* [Redupl. of BABBLE.] Idle talk; babble.
bib'bler (bĭb'lẽr), *n.* One who bibbles.
bib'bons (bĭb'ŭnz), *n. pl.* A nonsense word used and probably coined by Edward Lear to supplement *ribbons* ("ribbons and *bibbons* and loops and lace") in his poem *The Quangle Wangle's Hat.*
bib'cock' (bĭb'kŏk'), *n.* A stopcock or faucet having a bent-down nozzle.

Bibcock.

‖**bi'be·lot'** (bē'blō'; *E.* bĭb'lō), *n.* [F., fr. OF. *belbel* plaything. See BAUBLE.] A small decorative article of virtu; a trinket; a mantel ornament.
bi·ben'zyl (bī-bĕn'zĭl; bī'bĕn-zĭl'), *n.* [*bi-* + *benzyl.*] *Chem.* A colorless crystalline hydrocarbon, $C_6H_5CH_2CH_2C_6H_5$, obtained variously, as by the action of sodium on benzyl chloride; *s*-diphenyl-ethane; — called also *dibenzyl.* Its molecule is a doubled benzyl radical.
‖**bi'be·ron'** (bē'brôN'), *n.* [F.] A nursing bottle.
bi'bi (bē'bē), *n.* [Hind. & Per. *bībī* lady.] A lady, usually a European; a term of respect, like *Mrs.;* sometimes, the (Hindu) mistress of a house. *India.*
Bib'i·on'i·dae (bĭb'ĭ-ŏn'ĭ-dē), *n. pl.* [NL., fr. *Bibio,* type genus (fr. L. *bibio* small insect in wine) + *-idae.*] *Zool.* A family of two-winged flies of the suborder Nematocera. The type genus **Bib'i·o** (bĭb'ĭ-ō) comprises the March flies, whose larvae feed on the roots of grasses and other plants. — **bib'i·on'id** (bĭb'ĭ-ŏn'ĭd), *n. & adj.*
bi·bi'ri (bē-bē'rē), *n.* [Sp. & Pg. *bibiru.*] The bebeeru.
bib'i·to'ry (bĭb'ĭ-tō'rĭ *or, esp. Brit.,* -tẽr-ĭ), *adj.* [NL. *bibitorius,* fr. LL. *bibitor* toper.] Pert. to drinking or tippling.
bi'–bi·va'lent (bī'bī-vā'lĕnt; bī-bĭv'ȧ-lĕnt), *adj.* *Physical Chem.* Pert. to or designating an electrolyte that dissociates into two bivalent ions.
Bi'ble (bī'b'l), *n.* [OF., fr. L. *biblia,* fr. Gr. *biblia,* pl. of *biblion,* dim. of *biblos* book, papyrus, after the Phoenician city *Byblos* (now Jubayl), whence papyrus was exported.]
1. [*not cap.*] A book. *Obs.* *Chaucer.*
2. The Book, by way of eminence, — the book made up of the writings accepted by Christians as inspired by God and of divine authority; the Scriptures of the Old and New Testaments; sometimes, in a restricted sense, the Old Testament. Also, the book made up of writings similarly accepted by the Jews; as, a rabbinical *Bible,* that is, a Bible with the notes of the rabbis. No manuscript of the Old Testament in the original Hebrew antedates the 9th century A.D., and none of the New in the Greek is earlier than the 4th. The origin of the customary division into chapters (formerly attributed to Hugues de Saint-Cher and dated about 1262) is now dated about 1200 and assigned to Stephen Langton, later Archbishop of Canterbury, and the numbering of verses to Robert Stephen's Greek Testament, 1551 (an adaptation of the system of Rabbi Isaac Nathan, in his Hebrew Concordance, published in Venice, 1523).
The Bible as a whole was known to the Middle Ages in the Western Church through the Vulgate. Versions (translations) in vernacular often constituted the earliest or most important literary monuments, as of Gothic, Basque, and Slavonic. Among partial versions, or more properly paraphrases, in Anglo-Saxon are the Cædmonian poems and several renderings of the Gospels. The first complete translation of the Vulgate into English was made by Wycliffe about 1382, and revised by John Purvey about 1388. During the Renaissance, editions of the Bible in the original Hebrew and Greek afforded a broader textual basis, on which William Tyndale founded his version of the New Testament (Worms, 1525–26), the Pentateuch, and other parts of the Old Testament. Miles Coverdale, who may have been one of his assistants, published the first complete English Bible in 1535. Luther's Bible (which see) was completed about the same time. Subsequent important English versions and editions are: Matthew's Bible, 1537; Great Bible, 1539; Cranmer's Bible, 1540; Geneva Bible, 1560; Bishops' Bible, 1568; Authorized Version, or King James Bible, 1604–11; Reims N. T., 1582; Douay Bible, 1609–10; Revised Version, 1881, 1885; American Revised Version, 1901. These are treated in the general Vocabulary. Various ancient versions, as the Targums, Septuagint, and Peshitta, have been used as aids toward re-establishing the original text. For ancient texts, see CODEX. For the contents, see OLD TESTAMENT, NEW TESTAMENT. See also TRADITION, APOCRYPHA, CANON, etc.
There are many other editions, or names for editions, the chief importance of which is due to some special circumstance, such as a mistake or peculiarity in printing or translation. Many of these, with the passage or fact from which the names arose, are here given: **Adulterous Bible.** = WICKED BIBLE, below. — **Bible of Ferrara** (fĕr-rä'rä). The first edition (1553) of the Old Testament in Spanish, by Duarte (Edward) Pinel, made directly from the Hebrew expressly for the Jews. Another edition was prepared for the Christians and issued there in the same year. — **Bible of 42 lines.** = MAZARIN BIBLE, below. — **Bible of the Bear.** See BIBLIA DEL OSO. — **Bible of the Poor.** See BIBLIA PAUPERUM. — **Bible of 36 lines.** A folio edition of the Biblia Latina (the second Latin edition) with pages of two columns having 36 lines; — called also the *Bamberg Bible,* because probably printed there, 1460; *Schelhorn's Bible,* because described by him in 1760; and *Pfister's Bible,* because printed by Albert Pfister. — **Breeches Bible.** The Geneva Bible, 1560, reading in Gen. iii. 7, "They sewed fig leaves together and made themselves *breeches* [aprons]." — **Bug Bible.** A bible (1551) reading in Psalm xci. 5, "So that thou shalt not need to be afraid for any *bugges* [bogies, terrors] by night." The same expression is found in Coverdale and Taverner. — **Kralitz,** *or* **Brothers', Bible** (krä'lĭts). The most important Bohemian version, published in six volumes at Kralitz in Moravia (1579–93), and so named in allusion to the work of the United Brethren upon it. — **Leopolita Bible** (lā'ō-pō-

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bhan'gi (bŭng'gē), *n.* = BHUNGI.
bhar (bär). Var. of BAHAR.
bha'ra (bä'rȧ), *n. sing. & pl.* [Malay *bahara,* fr. Skr. *bhāra* weight, load.] See WEIGHT, *Table.*
Bha·va'ni (bȧ-vä'nē), *n.* = DEVI, a, 1.
bhel (bēl). Var. of BEL.
Bhi'li (bē'lē), *n.* See INDO-EUROPEAN LANGUAGES, *Table.*
Bhi'ma (bē'mȧ), *n.* See MAHABHARATA.
bhis'tee, bhis'ti (bĭs'tĭ). Vars. of BHEESTY. *India.*
Bho·ta'ni (bō-tä'nē), **Bho'tan·ese'** (bō'tăn-ēz'; -ēs'; 66). Vars. of BHUTANI, BHUTANESE.
Bho'ti·a (bō'tĭ-ä), *n.* See INDO-CHINESE LANGUAGES, *Table.*
Bho·wa'ni (bō-wä'nē). Var. of BHAVANI.
bhun'der (bŭn'dẽr; 99). Var. of BANDAR.
bhu'sa. Var. of BHOOSA.
bi-. = BIO-.
bi·a'bo (bē-ä'bō), *n.* = CANDLENUT a.
bi·ac'id (bī-ăs'ĭd), *adj. & n.* [*bi-* + *acid.*] = DIACID.
bi'a·cro'mi·al, *adj.* See BI-, 3.
bi·an'co (bē-äng'kō; *It.* byäng'kō), *n.* [It.] = ALBUS.
biangular co-ordinates. *Math.* See CO-ORDINATE, *n.,* 2.
bi·an'nu·late, *adj.* See BI-, 1 a.
bi'as·ness, *n.* See -NESS.
bi'ast. Biased. *Ref. Sp.*
Bi'a·tas (bī'ȧ-tăs). *Bib.*
bi·ax'al (-ăk'săl), *adj.* = BIAXIAL.
bi·ax'il·lar'y, *adj.* See BI-, 1 a, 3.
bi·ba'sic (bī-bā'sĭk), *adj.* [*bi-* + *basic.*] = DIBASIC.
bibb nozzle. Var. of BIB NOZZLE.
bibd. Bibbed. *Ref. Sp.*
bi·ben'zo·yl (bī-bĕn'zō-ĭl; -ēl), *n.* = BENZIL.
bi·bi'rine (bē-bē'rēn; -rĭn), **-rin.** [Var. of BEBEERINE.]
bi·bi'ru (-rōō). Var. of BEBEERU.
bible. † BIBBLE.

Webster's New International Dictionary, *Second Edition*

A Composite Page of Terms in Religion

re·li′gion (rē·lĭj′ŭn), *n.* [OF., fr. L. *religio*, prop., tahoo, restraint; akin to L. *religare* to hold hack, hind fast, *ligare* to hind. See RE-; LIGATURE. Cf RELY.] **1.** The service and adoration of God or a god as expressed in forms of worship, in obedience to divine commands, esp. as found in accepted sacred writings or as declared by recognized teachers and in the pursuit of a way of life regarded as incumbent on true believers; as, ministers of *religion*.

You shall afflict your souls by a perpetual *religion*. *Leviticus* xvi. 31 (*D.V.*).

Pure *religion* and undefiled before God and the Father is this, To visit the fatherless and widows in their affliction, and to keep himself unspotted from the world. *James* i. 27.

2. The state of life of a religious; as, to enter or retire into *religion*; also, *Now Rare*, a religious, or monastic, order or mode of life.
3. One of the systems of faith and worship; a form of theism; a religious faith; as, Christian or monotheistic *religions*; tolerant of all *religions*.
4. The profession or practice of religious beliefs; religious observances collectively; *pl.*, rites.

The kernel of his practical *religion* was that it was respectable, and beneficial to one's business, to be seen going to services. *Sinclair Lewis.*

5. Devotion or fidelity; scrupulous conformity; conscientiousness.

Those [legal practices] . . . are still continued with much *religion*. *Sir M. Hale.*

6. An apprehension, awareness, or conviction of the existence of a supreme heing, or more widely, of supernatural powers or influences controlling one's own, humanity's, or nature's destiny; also, such an apprehension, etc., accompanied by or arousing reverence, love, gratitude, the will to obey and serve, and the like; religious experience or insight; often, specif., the awakening of religious belief, convictions, etc., as in conversion; as, one without *religion*; man only is capable of *religion*; to get *religion*.
7. [*cap.*] Religious faith and practice personified.
8. a A pursuit, an object of pursuit, a principle, or the like, arousing in one religious convictions and feelings such as great faith, devotion, or fervor, or followed with religious zeal, conscientiousness or fidelity; as, patriotism was to him a *religion*. **b** Acceptance of and devotion to such an ideal as a standard for one's life.

An artist whose *religion* is his art. *Browning.*
Men of science do well enough with no other *religion* than the love of truth. *John Burroughs.*

9. *Obs.* **a** A religious. **b** Religious obligation. **c** Awe.
d [*cap.*, with *the.*] Protestantism.

Authorized Version, *or* **King James Bible.** A thorough revision of the English Bihle, based on the Bishops' Bihle. It was proposed by King James I, 1604, executed by about fifty revisers in six companies at Westminster, Oxford, and Cambridge, and published in 1611. Probably the name *Authorized Version* arose from the words "Appointed to be read in Churches" appearing on the title page.

Dou′ay′ Bi′ble *or* **Ver′sion** (dōō′ā′; *in England usually* dou′ĭ). [From *Douay*, or *Douai*, a town in France.] An English version from the Latin Vulgate, for Roman Catholics. The New Testament was published at Reims, 1582, the Old Testament at Douai, 1609–10. Various revised editions have been published.

Immaculate Conception. *R.C.C.* The miraculous conception by which the Virgin Mary "in the first instant of her conception by a singular privilege and grace granted by God, was preserved free from all stain of original sin." The doctrine was made an article of faith by Pius IX (*Ineffabilis Deus*, Dec. 8, 1854). Immaculate Conception is not the same as virgin birth.

original sin. *Theol.* The sin, or defect, incurred by each man in consequence of the first sinful choice made by the first man. Two prevailing conceptions of this sin are: **a** *R.C.Ch.* The sin by which the human race, rebellious against God through Adam's disobedience, was deprived of grace and Paradise, and made subject to ignorance, evil, death, and all other miseries. **b** The natural evil tendency, or depravity, of man, interpreted as sin involving guilt, and as the source of all actual sins; — a leading conception in Protestant theology.

her′e·tic (hĕr′ĕ·tĭk), *n.* [ME. *heretike, eretike*, fr. OF. *heretique*, fr. L. *haereticus*, fr. Gr. *hairetikos* able to choose, heretical, fr. *hairein* to take, choose. See HERESY.] One who holds to a heresy; esp., one who, having made a profession of Christian belief, deliberately and resolutely upholds a doctrine varying from that of his church, or rejects one prescribed by his church.
Syn. — HERETIC, SCHISMATIC, SECTARIAN (*or* SECTARY), DISSENTER, NONCONFORMIST. A HERETIC is one who maintains heterodox, or rejects orthodox, opinions or beliefs; a SCHISMATIC is one who (often unjustifiably or contentiously) separates from, or (esp.) provokes division in, a church or communion; a SECTARIAN is an ardent, often narrow-minded or bigoted, adherent of a sect; as, "There is sprung up an *heretic*, an arch one, Cranmer" (*Shak.*); "Answered with as much heggarly logic and earnestness as was ever heard to proceed from the mouth of the most pertinacious *schismatic*" (*Walton*); "the *sectary's* . . . precious discoveries of himself and his friends for expressing the inexpressible and defining the undefinahle in peculiar forms of their own" (*M. Arnold*); "A purely *sectarian* purpose" (*Lafcadio Hearn*). A DISSENTER is one who separates himself, without the implication conveyed hy *schismatic*, from an established church, specif. from the Church of England; NONCONFORMIST is ordinarily synonymous with *dissenter*, but sometimes implies (in England) a more qualified dissent; as, "Wesley was not a *schismatic*, or even, in the doctrinal sense, a *dissenter*. He desired, not to secede from the Established Church, but to fill it with new life" (*Atlantic Monthly*); "The English and Scotch *Nonconformists* have a great horror of establishments and endowments for religion" (*M. Arnold*). Cf. HETERODOX.
Ant. — Believer supporter, conformist.

Ko·ran′ (kō·rän′; kō′răn; -răn; 181; 277), *n.* [Ar. *Qur'ān*, fr. *qara'a* to read. Cf. ALCORAN, KARAISM.] The scriptures of the Mohammedans, containing the professed revelations to Mohammed. By Mohammed the name *Koran* was given to a single revelation or to a collection of revelations, but after his death, when his various utterances had been collected in writing, this name was applied to the whole book. The Koran is in Arabic, is divided into 114 suras, or chapters, and is the basis for the religious, social, civil, commercial, military, and legal regulation of the Mohammedan world. — **Ko·ran′ic** (kō·răn′ĭk), *adj.*

Religion

On this composite page, and on the regular vocabulary pages immediately following, are specimen definitions of terms in religion.

Special meanings of terms in various beliefs and creeds are given with satisfactory fullness.

Some of the less frequently used Biblical terms and names are found in the lower section of the regular vocabulary pages.

church (chûrch), *n.* [ME. *chirche*, fr. AS. *circe*, fr. Gr. *kyriakon* the Lord's house, fr. *kyriakos* concerning a master or lord, fr. *kyrios* master, lord, fr. *kyros* power, authority; akin to Skr. *śūra* mighty, bold, OIr. *caur, cur*, hero. Cf. KIRK.] **1.** A building set apart for public worship, esp. Christian worship; as, a city of *churches*; to list the *churches* and synagogues. Specif.: **a** A house of worship for a parish as distinguished from one for a small group as a college or those living in a remote part of the parish; — contrasted with *chapel* (senses 1, 2, & 3); as, a diocese with 100 *churches* and 25 chapels. **b** A house of worship for members of the established (or formerly established) church, those of nonconformists and Roman Catholics being called *chapels*; — a usage still prevailing in Ireland and Scotland but not as widespread in England as formerly.
2. A place of worship of any religion, as, formerly, a Jewish or pagan temple or a mosque. *Acts* xix. 37.
3. Church service; divine worship or religious service in a church; the church building with the service going on in it; as, to go to, or attend, *church*; to be at, or in, *church*.
4. [*often cap.*] The organization of Christianity or of an association of Christians, as in a nation; esp., the clergy and officers collectively, or as a permanent corporation, in some countries constituting one of the estates; ecclesiastical power, authority, or government; — often opposed to the *state*.
5. The clerical profession; as, to go into the *church*; the youngest son was destined for the *church*.
6. The collective body of Christians; all who are identified with Christ as his sincere followers; — often, as a spiritual society separated from the world, opposed to the *world*.

Ye shall pray for Christ's Holy Catholic *Church*, that is, for the whole congregation of Christian people. *The Bidding Prayer.*

7. A body of Christian believers holding the same creed, observing the same rites, and acknowledging the same ecclesiastical authority, regarded either as the only true representative, or as a separate hranch, of the church universal, and often confined to limits territorial or historical; a denomination; as, the Presbyterian *Church*.
8. A formally organized body of Christian believers worshiping together. *Acts* xiv. 23.
9. Any body of worshipers; a religious society or organization not Christian, or not distinctively so. Specif.: **a** The congregation or company of God's worshipers under the old dispensation or in Old Testament times, the analogue and precursor of the Christian church. **b** A society, school, or the like, resembling the Christian church, as in having a set of opinions held in common; as, the Jewish *church*.

bap′tism (băp′tĭz'm), *n.* [ME. *bapteme*, fr. OF. *baptesme* (F. *baptême*), fr. L. *baptisma*, fr. Gr. *baptisma*, fr. *baptizein* to baptize. See BAPTIZE.] **1.** *Eccl.* **a** *Christian.* Act or ceremony of baptizing; the ceremony of making or proclaiming one a Christian or of admitting one into a Christian communion, by the application of water and the recital of a form of words, as, "I baptize thee in the name of the Father, and of the Son, and of the Holy Ghost"; specif., esp. *R. C. & Eastern Churches*, a sacrament by whose reception one becomes a Christian, free from all sin, original or actual, spiritually regenerate, and capable of receiving the other sacraments in due course. The mode or rite of administering baptism in the Christian churches is fixed by the discipline or doctrine of each church. There are three ways in which water is applied, by *aspersion*, or sprinkling, by *affusion* (or *infusion*), or pouring on the head, and by *immersion*. By many denominations all forms are recognized though not practiced, but among others, as Baptists, immersion only is regarded as valid. The Roman Catholic and Orthodox churches, in addition to the canonical form, recognize the validity of two kinds of haptism, either of which may be received by those who earnestly desire to be haptized, hut who die before the sacrament can be administered. These are **baptism of blood** and **baptism of desire.** The former comes to martyrs for the faith, as in the case of some catechumens in the early Church; the second to those animated by perfect love of God. **b** *Jewish.* Originally, a rite of purification or consecration; also, in later use, a rite of initiation of a convert.

Baptism. — A religious ablution signifying purification or consecration. . . . *Baptism* is not merely for the purpose of expiating a special transgression, as is the case chiefly in the violation of the so-called Levitical laws of purity; but it is to form a part of holy living and to prepare for the attainment of a closer communion with God. . . . According to rabbinical teachings, which dominated even during the existence of the Temple, *baptism*, next to circumcision and sacrifice, was an absolutely necessary condition to be fulfilled by a proselyte to Judaism. *Jewish Encyc.*

2. Any act or experience by which one is purified, initiated, named, or the like, as in baptism by water, as, formerly, the ceremony of blessing and naming a bell or a ship; hence, any purifying or sanctifying experience or ordeal
3. *Christian Science.* Purification by Spirit; submergence in Spirit. *Mary Baker Eddy.*

lim′bo (lĭm′bō), *n.* [L. *limbus* border, edge, *in limbo* on the border. See LIMP, *adj.*; cf. LIMB a border.] **1.** [*often cap.*] **a** The abode of souls barred from heaven through no fault of their own, esp., of the souls of just men who died before the coming of Christ (**lim′bo pa′trum** [pā′trŭm]) or of unbaptized infants (**lim′bo in·fan′tum** [ĭn·făn′tŭm]); — so called because it was believed by theologians to lie on the confines of hell. **b** *Obs.* Hell.

Tal′mud (tăl′mŭd), *n.* [Heb. *talmūdh* instruction, fr. *lāmadh* to learn.] The body of Jewish civil and canonical law, consisting of the combined Mishnah or text, and Gemara, or commentary; also, restrictedly, the Gemara alone. There are two Talmuds, named from the region in which they originated, the *Palestinian*, often called, incorrectly, the *Talmud of Jerusalem, Jerusalem Talmud*, or *Talmud Yerushalmi*; and the *Babylonian*, often called *Talmud Babli*. They contain the same Mishnah, but different Gemaras. The Palestinian Talmud was practically completed in the 4th century, and the Babylonian in the 5th or 6th century A.D. The latter is about three times as large as the former, and practically superseded it as an authority. The contents of the Gemara in each is of the most varied character, and is usually called *Halakah* or *Haggada* according as it is purely legal or not. (See HALAKAH; HAGGADA.) The Gemara of the Babylonian Talmud is the more subtle or dialectical.

Tet′ra·gram′ma·ton (-grăm′ȧ·tŏn), *n.* [*sometimes not cap.*] [NL., fr. Gr. *tetragrammaton*, fr. *tetra-* (see TETRA-) + *gramma* a letter.] The four consonants forming the Hebrew "incommunicable name" of the Supreme Being, which in later Jewish tradition is not pronounced save with the vowels of *Adonai* or *Elohim*, so that the true pronunciation is lost. The four consonants are variously written *IHVH, JHVH, JHWH, YHVH, YHWH.* Numerous attempts have been made to represent the supposed original form, as Jahaveh, Jahvah, Jahve, Jahveh, Yahve, Yahveh, Yahwe, Yahweh, etc. See ADONAI, JEHOVAH, YAHWEH. — **tet′ra·gram′ma·ton′ic** (-tŏn′ĭk), *adj.*

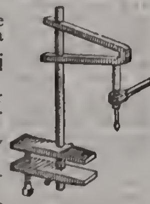
fun′da·men′tal·ism (fŭn′dȧ·mĕn′tăl·ĭz'm), *n.* [*often cap.*] **a** A recent movement in American Protestantism in opposition to modernistic tendencies, re-empbasizing as fundamental to Christianity the inerrancy of the Scriptures, Biblical miracles, especially the virgin hirth and physical resurrection of Christ, and substitutionary atonement. **b** The heliefs so emphasized. **c** The state or fact of being an adherent of fundamentalism.

mod′ern·ism (-ẽr·nĭz'm), *n.*
2. [*often cap.*] A current movement in the Protestant churches arising mainly from the application of modern critical methods to the study of the Bible and the history of dogma, and emphasizing the spiritual and ethical side of Christianity rather than historic dogmas and creeds. Cf. FUNDAMENTALISM.
3. *Anglican Church.* [*cap.*] The principle that all knowledge by which religion can he affected necessarily reaffirms the fundamental truths of Christianity, but necessitates their official restatement by the Church in the language of successive stages of civilization. The rejection of heliefs and formularies disproved by new learning is thus held to be incumbent upon true Christians, as such, and to lie historically at the hasis of the Anglican Church, whose separate existence is due to the application of this principle.
4. [*cap.*] *R.C.Ch.* A body of methods and tendencies in the fields of Scripture, apologetics, dogma, history, and ethics, seeking to adapt the teachings of the Church to the conclusions of modern scientific and critical research; — so called by Pius X, who condemned it as substituting purely subjective criteria in matters of faith and morals for the authority of the Church.

jus′ti·fi·ca′tion (-tĭ·fĭ·kā′shŭn), *n.* [OF. or L.; OF. *justification*, fr. LL. *justificatio*. See JUSTIFY.]
6. *Theol.* The act, process, or state of being justified (see JUSTIFY, 3) by God; also, the terms under which one is so justified. The controversy over the nature of justification during and following the Reformation reveals the original theological difference between Protestantism and Catholicism. Specif.: **a** *Prot. Theol.* More fully, **justification by faith.** (1) The doctrine characteristic of historic Protestantism, and ascribed by its adherents to Paul, that man can be justified only when he faith he accepts the righteousness of Christ, which God imputes to him. To the Roman Catholic objection that justification is by faith and good works, it was replied that man is justified "by faith alone, but not by the faith that is alone," that is, not followed by good works. (2) As interpreted by many liberal Protestants, God's approval of the attitude of those who respond affirmatively to the moral and religious appeal of Christ, as heing essentially right and containing the promise and potency of the eventual development of a fully righteous character. **b** *R. C. Theol.* More fully, **justification by faith and good works.** The process by which a sinner is changed from unrighteousness to holiness in the sight of God through faith that is active in charity and good works; also, a state in which a soul is just and pleasing to God owing to the interior transformation wrought by sanctifying grace.

dea′con (dē′kŭn; -k'n), *n.* [ME. *deken*, fr. AS. *diacon*, fr. LL. *diaconus*, fr. Gr. *diakonos* a servant or minister, a minister of the church, of uncert. origin. Cf. DIACONAL.]
1. In Christian churches an officer or, in some cases, a cleric in orders, who serves as an assistant to a minister or priest, his duties varying in different communions. Specif.: **a** In episcopal churches, one in orders next helow that of priest (see ORDER, *n.*, 21) and now usually, a candidate for ordination to the priesthood. In the Latin Rite, possession of this order permits him to baptize, to distribute Holy Communion, to preach, and at High Mass to assist the celebrant immediately and to sing the Gospel. In the Eastern churches, he has practically the same functions except that of baptism. In the Protestant Episcopal Church he serves a year as an assistant before being ordained a priest. The term *deacon* is also applied to the priest who serves as first assistant to the celebrant at solemn services as High Mass, or to the gospeler in the Communion service. **b** In some Presbyterian churches, as the Free Church of Scotland, an office bearer charged with the care of the temporal affairs of a congregation. See DEACONS' COURT. **c** In congregational churches, a layman having some duties similar to those of a lay elder in presbyterian churches. **d** In Lutheran churches, a layman in an office subordinate to pastors and elders; also, an assistant minister of a church in which there are several ministers. See *Forms of Address*, in Appendix.
6. *Mormon Ch.* One ordained to the lowest grade of the Aaronic priesthood, serving as assistant to the teacher.

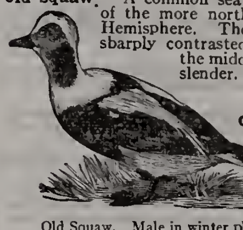
old hand. a A practised person, or band; one skilled by experience. b *Australasia.* Formerly, an ex-convict.
Old Harry. The Devil.
old helio. The color madder violet.
Old Hickory. a General Andrew Jackson; — a nickname given to him, first in 1813, by his soldiers on account of his physical toughness and sturdiness. b The 30th Division of the U. S. Army in the World War, recruited from Tennessee, North and South Carolina, and the District of Columbia.
Old High German. See GERMAN, *n.*, 2 b.
old home week. A week of celebration characterized by a reunion of those who have resided in a place.
Old Hundred *or* **Hundredth.** The tune, first published about 1551, to which the doxology is usually sung. Its origin is uncertain.
Old Hunker. = HUNKER, *n.*
Old Icelandic. *Philol.* The Icelandic language before the Reformation; Old Norse. See ICELANDIC.
old identity. An old and well-known inhabitant of a locality. *Colloq., Australasia.*
Old Indian. Sanskrit; Vedic Sanskrit.
old injun. The old squaw. *Local, U. S.*
Old Ionic. See GREEK, *n.*, 7.
Old I'ron·sides' (ī'ẽrn-sīdz'). a See SHIP, *Table.* b A poem (1830) by Oliver Wendell Holmes, — a successful protest against a proposal to break up the vessel.
old'ish, *adj.* Somewhat old.
old Italian book hand. See SEMICURSIVE.
old ivory. A color, reddish-yellow in hue, of low saturation and high brilliance. — **old'–i'vo·ry,** *adj.* Cf. COLOR.
Old Kingdom. The earliest historical kingdom in Egypt, with its seat chiefly at Memphis, under the 1st to VIth dynasties, about 3500 B.C. to 2700 B.C. See MIDDLE KINGDOM.
Old Kirk, the. = AULD KIRK, THE.
Old Ku'ki (kōō'kĭ). See INDO-CHINESE LANGUAGES, *Table.*
Old Lady Day. See LADY DAY.
Old Lady of Thread'nee'dle Street (thrĕd'nē'd'l). The Bank of England, which is situated in Threadneedle Street; — a nickname.
Old Lammas Day. See LAMMAS.
old'land' (ōld'lănd'; -lănd), *n. Geol.* An extensive area of ancient crystalline rocks reduced to low relief by long erosion.
old lang syne (sīn). = AULD LANG SYNE.
Old Latin. See LATIN, *n.*, 1.
Old Law. *Eccl.* The Mosaic law. See LAW, 8.
Old Light. 1. *Eccl.* One who accepts conservative doctrines or views; a member of a conservative party.
2. *Eccl. Hist.* Specif.: a = AULD LICHT b. b Any one of those Reformed Presbyterians in North America who hold that it is not permissible to vote in civil elections or to hold civil office. Cf. NEW LIGHT.
Old Light. Accepting conservative doctrines or views, esp. in religion; as, *Old Light* seceders.
old'–line' (66), *adj.* a Belonging to or descended from an old line; established of old. b Following or adhering to old lines, as in business or politics; conservative; as, *old-line* Democrats.
old–line company. *Life Insurance.* A company that writes an absolute contract, collects a fixed level premium, and accumulates the legal reserve. *J. A. Jackson.*
Old Line State. Maryland, whose northern boundary coincides with Mason and Dixon's line.
Old Low Frankish. See INDO-EUROPEAN LANGUAGES, *Table.*
old maid. 1. = SPINSTER, 4.
2. A fussy, nervous, timid person, esp. a man. *Colloq.*
3. A simple game of cards, played by matching them. The removal from the pack of one card, usually a queen, leaves an odd card, and the person who has it at the end of the game is the *old maid.*
4. a *Local, Eng.* The lapwing. b The tobacco-box skate. See 1st SKATE.
5. *Bot.* a *West Indies.* The red periwinkle. b *Ala.* The common garden zinnia.
old'–maid's'–bon'net, *n.* The wild lupine.
old'–maid's'–night'cap', *n.* The wild geranium.
old'–maid's'–pink', *n.* a The corn cockle. b The common soapwort.
old man. 1. Familiarly, one's father or, sometimes, one's husband; hence, one holding a position resembling that of the head of a family, as the commander of a ship or regiment; the head of a school; an employer, etc. Often used affectionately to or of an old or intimate acquaintance or a person treated as such.
2. A full-grown male kangaroo. *Australia.*
3. A cuckoo (*Hyetornis pluvialis*). *Jamaica.*
4. a Southernwood. b Rosemary.
5. a *Anthropol.* The last sheaf of the harvest; — sometimes shaped into a human effigy and buried. b *Colloq.* The dominant male or patriarchial chief of a primitive family group.
6. *Mach.* A kind of drilling post for use with a ratchet, electric, or pneumatic drill.
7. *Theat.* An actor who enacts elderly characters.
8. *Theol.* Unregenerate human nature. *Eph.* iv. 22.


Old Man, 6.

old'–man'–and–wom'an, n. The houseleek.
old'–man' cac'tus. A Mexican cactus (*Cephalocereus senilis*). Its joints are crowned by drooping white hairs.
old–man fern. An Australasian tree fern (*Dicksonia antarctica*) with very large, thrice-pinnate fronds.
Old Man of Forney. See FERNEY, SAGE OF.
Old Man of the Mountain. a See ASSASSIN, n., 1. b See *the Profile*, under PROFILE, *n.*
Old Man of the Sea. In the *Arabian Nights*, an apparently feeble old man who begged Sindbad the Sailor to carry him across a brook and refused to get down when fixed on Sindbad's back. Sindbad made him drunk and shook him off. Often used figuratively.
old man saltbush. A tall Australian shrub (*Atriplex nummularia*).
old'–man's'–beard', *n.* a Any of several species of *Clematis*, esp. *C. vitalba* in England and *C. virginiana* in the United States; — so called from the plumose styles. b The long moss. c *U. S.* The fringe tree. d *Dial. Eng.* The beefsteak saxifrage. e *Dial. Eng.* Any of several species of *Equisetum.* f = BEARD LICHEN.
old'–man's'–eye'brow', n. An Australian sundew (*Drosera binata*).
old'–man's'–flan'nel, *n.* The common mullein.
old'–man's'–head', *n.* a *Eng.* The carnation b The old man cactus.

old'–man's'–root', *n.* The American spikenard.
old master. a One of the old masters. b A painting by one of the old masters.
old masters, the. Distinguished painters who lived before the modern period (i. e., before the 18th century); esp., the celebrated painters of the 16th and 17th centuries.
Old Mexico. The republic of Mexico, in distinction from the State of New Mexico or the region acquired from Mexico by the United States in 1848.
Old Mortality. Robert Paterson, a Scotch religious itinerant of the latter half of the 18th century, who is said to have gone about cleaning and repairing the monuments of the Covenanters in country churchyards; — a popular nickname. He gives the title to Scott's novel *Old Mortality* (1816), a historical romance of the wars of the Covenanters in Scotland in 1679, the assumed author professing to have got his materials from him.
old moss green. A color, greenish-yellow in hue, of medium saturation and medium brilliance. Cf. COLOR.
Old Nick. The Devil. *Colloq.*
Old Noll (nŏl). Oliver Cromwell; — contemptuously so called by the Cavaliers.
Old Noll's jig. An English jig of the Restoration period.
Old Norman French. The Old French dialect of Normandy. See NORMAN-FRENCH.
Old Norse. Old Scandinavian, best represented in literary form by Old Icelandic (see ICELANDIC). The oldest forms known are found in runic inscriptions, and in early borrowed words in Finnish. With its descendants, Icelandic, Norwegian, Swedish, and Danish, it forms the Scandinavian, or northern, branch of the Germanic, or Teutonic, family. See ICELANDIC, INDO-EUROPEAN LANGUAGES, *Table.*
Old North Church. Christ Church (P.E.), Boston, Mass., the oldest extant ecclesiastical building in the city; — so called from its location in the northern part of the old town. It dates from 1723, and in its tower were hung, it is said, the lanterns which gave the signal to Paul Revere to start on his famous ride.
Old North French. The northern dialects of Old French, including especially those of Normandy and Picardy. See FRENCH, *n.*, 2.
Old North State. North Carolina; — a nickname.
Old Norwegian. The Norwegian language before the Reformation; Old Norse.
Old Nosy. See NOSY, *n.*, 2.
Old Oaken Bucket, The. A poem (1817) by Samuel Woodworth (see *Biog.*).
old olive. = OLIVE BROWN.
Old One. a The Devil. b In many primitive religions, an epithet of the chief deity, usually a creator.
Old Order Amish Mennonite Church. See MENNONITE, *n.*
Old Order Brethren. = YORKER BRETHREN. See RIVER BRETHREN.
Old Order Dunkers. = OLD GERMAN BAPTIST BRETHREN. See DUNKER, *n.*
Old Order Mennonite Church (Wisler). See MENNONITE, *n.*, *Table.*
Old Persian. See PERSIAN, *n.*, 2.
old Pharaoh, See PHARAOH, 3.
old pink. A brown, red-yellow in hue, of low saturation and medium brilliance. Cf. COLOR.
old play, the. The morality play.
Old Poker. The Devil.
Old Pretender. *Eng. Hist.* James Francis Edward Stuart (1688–1766), son of James II; — a nickname given him by the supporters of the Hanoverian succession.
Old Prices Riots. See O. P. RIOTS.
Old Probabilities. The chief of the government Weather Bureau in the United States; — humorously so called.
Old Prussian. a One of the original Prussian people, akin to the Lithuanians; a Borussian. b Their language. See PRUSSIAN, *n.*, 2.
old red. = BURNT CARMINE.
Old Red Sandstone. *Geol.* A thick series of fragmental rocks, chiefly sandstone, predominantly red in color, representing the Devonian system in some parts of Great Britain and elsewhere in northwestern Europe. They are chiefly of nonmarine origin. See GEOLOGY, *Chart.*
old regime. = ANCIEN RÉGIME.
Old Roman Symbol. A brief Christian creed used in Rome and elsewhere, in variant Greek and Latin forms, as early as the 2d century. It was probably based on a triadic baptismal formula such as that of Matthew xxviii. 19. The Nicene Creed (A.D. 381) displaced it as a baptismal confession. The Apostles' Creed (9th century) is an expanded, revised form.
old rose. A color, red in hue, of low saturation and medium brilliance. Cf. COLOR. — **old'–rose',** *adj.*
old roseleaf. A color, yellowish-red in hue, of low saturation and low brilliance. Cf. COLOR.
Old Ro'sey (rō'zĭ). Gen. William S. Rosecrans; — a nickname given to him during the Civil War.
Old Rough–and–Ready. Gen. Zachary Taylor; — a nickname given to him by his soldiers during the Mexican War.
Old Row'ley (rou'lĭ), Charles II, king (1660–85) of England, who was famous for his amours; — so nicknamed from a famous stallion in His Majesty's stud.
Old Sabellic. East Italic.
Old St. Paul's. 1. See ST. PAUL'S.
2. A historical romance (1841) by William Harrison Ainsworth.
Old Salon. See SALON, 3.
old salt. A sailor of long experience; — a landlubber's phrase.
Old Saxon. See SAXON, n., 2.
Old Scandinavian. See OLD NORSE.
old school. A school or party belonging to a former time, or preserving the character, manner, or opinions of a former time; as, a gentleman of the *old school*; — applied specif., *Theol.* [*usually caps.*], to those who were or are faithful to historic views or interpretation of doctrine, in distinction from those who adopt innovations. See NEW SCHOOL. — **old'–school', Old'–School'** (66), *adj.*
Old Scratch. [Cf. ME. *scratte* wizard, monster, ON. *skratti* a wizard, a goblin, imp, OHG. *scrat, scraz,* a goblin, G. *schrettel, schretz.*] An old jocular term for the Devil; the Old Nick.
Old Serpent, the. Satan. *Rev.* xx. 2; cf. *Gen.* iii.
Old Side. See PRESBYTERIAN, *adj.*
old silver. A nearly neutral gray, slightly yellowish, of medium brilliance. Cf. COLOR.
Old Slavic *or* **Slavonic.** See CHURCH SLAVIC.
old sledge. *Card Games.* = SEVEN-UP.
old sod, the. One's native land; — used esp. by emigrants from Ireland.

Old Sol. The sun. *Colloq.*
old soldier. *Slang.* a An emptied liquor bottle; a "dead man." b A cigar or cigarette butt. c An old tobacco quid.
old song. An obsolete song; hence, a trifle.
Old South Church *or* **Meetinghouse.** A famous ecclesiastical building in Boston, Mass., dating from 1729, formerly a Congregational church but now the property of a preservation society; — so called from its location in the south part of the old town. It is now used as a museum for historical relics. Cf. OLD NORTH CHURCH.
old sow. *Local Eng.* a A blue melilot. See MELILOT. b The pearly everlasting.
old squaw. A common sea duck (*Clangula hyemalis*) of the more northern parts of the Northern Hemisphere. The adult male is marked with sharply contrasted black and white, and has the middle tail feathers very long and slender. The female is plainer, and lacks the long tail feathers. Its flesh is poor.


Old Squaw. Male in winter plumage. (1/10)

old stager. See STAGER, 1.
old'ster (ōld'stẽr), *n.* [After *youngster.*] 1. An old or elderly person. *Colloq.*
2. In the British navy, a midshipman who has served four years; — distinguished from *youngster.*
Old Stone Age. *Archaeol.* The Paleolithic age.
old story. A story familiar from of old or because of repetition; hence, figuratively, any statement or excuse, or loosely, any occurrence or event, of the same nature as many preceding. *Colloq.*
old style. a Literally, a style belonging to, or characteristic of, a former time; a former, bygone, or antiquated style. b [*caps.*] See CALENDAR, 1. c *Print.* [*often cap.*] A style of type modeled after the roman and italic letters of such early printers as Caslon, Elzevir, etc. Old style is characterized by irregularity among individual letters, oblique serifs, and only a slight contrast between the light and heavy elements of the letter design.
☞ This is a line of 8-point CASLON OLD STYLE.
— **old'–style',** *adj.*
Old'style', Jonathan (ōld'stīl'). A pen name of Washington Irving.
Old Testament. The covenant of God with the Hebrews as set forth in the Bible; also, the books of the Bible in which this covenant is given. The canonical books (see CANON) of the Old Testament are broadly grouped as those of the Law (Torah), Prophets (Nebiim), and Hagiographa, or Writings (Ketubim), with which the Roman Catholic Church includes as canonical all but two — namely, 1 & 2 (3 & 4) Esdras and the Prayer of Manasses — of the 14 books specifically called Apocrypha by Protestants. (See APOCRYPHA, 1st CANON, 3.) The titles of these books and the nature of their contents are as follows:
LAW. — ***Genesis.*** i.–xi. Primeval history: the five "generations" of heaven and earth, Adam, Noah, sons of Noah, Shem. xii.–l. Patriarchal history: the five "generations" of Terah, Ishmael, Isaac, Esau, Jacob. — ***Exodus.*** i.–xiii. Deliverance of Israel from Egypt. xiii–xviii. Journey to Sinai. xix–xl. Revelations and laws at Sinai. Making and furnishing of the tabernacle. — ***Leviticus.*** i.–vii. Law of sacrifice. viii.–x. Consecration of priesthood. xi.–xvi. Law of clean and unclean. Day of atonement. xvii.–xxvii. Law of holiness. — ***Numbers.*** Census of the Israelites, and various lawgiving and events of the 40 years in the wilderness. — ***Deuteronomy.*** Three addresses of Moses in Moab. His farewell injunctions, song, and death.
PROPHETS. — a *"Former."* ***Joshua.*** i.–xii. Invasion and conquest of Canaan. xiii.–xxi. Division of the land. xxii.–xxiv. Episode of Reuben, etc. Last days of Joshua. ***Judges.*** History of Israel under the Judges, esp. Deborah and Barak, Gideon, Jephthah, and Samson. — 1 & 2 ***Samuel*** (called 1 & 2 ***Kings*** in the Douay Version). I. i.–xii. Birth of Samuel, and his succession to Eli as judge. xiii.–xxxi. Establishment of the kingdom and reign of Saul. II. Succession and reign of David. — 1 & 2 ***Kings*** (called 3 & 4 ***Kings*** in the Douay Version). I. i.–xi. Reign of Solomon. xii. Disruption of the kingdom under Rehoboam xiii.–II. end. History of the divided kingdoms, with the careers of Elijah and Elisha, to the captivity of Judah in Babylon, 586 B.C. — b *"Latter."* (1) Major. ***Isaiah.*** i.–xxxv. Discourses on the state of Judah and Israel. Oracles, domestic, foreign, and Messianic. xxxvi.–xxxix. Historical passage from the reign of Hezekiah. xl.–lxvi. Later prophecies relating to the Babylonish captivity, and to the Servant of Jehovah, or the Messiah. — ***Jeremiah.*** Prophecy and narrative relating to the fall of Jerusalem and the deportation to Babylon, with incidents of the prophet's life. — ***Ezekiel.*** Visions and prophecies of judgment on apostate Israel (i.–xxiv.), on her enemies (xxv.–xxxii.), and of her final redemption. — (2) Minor. ***Hosea.*** Reproof and prophecy for apostate Israel, symbolized by marriage to a faithless wife. — ***Joel.*** Predictions of judgment on Judah, with exhortation to repentance, and promise of a final blessing. — ***Amos.*** Reproofs, exhortations, and visions, addressed to Israel. — ***Obadiah***, judgment on Edom for siding with Israel's enemy. — ***Jonah.*** Story of the mission of Jonah to Nineveh. — ***Micah.*** Impending judgment on Israel and esp. Judah, with proffer of Messianic hope. — ***Nahum.*** Judgment of God in the overthrow of Nineveh. — ***Habakkuk.*** i. A dialogue between the prophet and Jehovah over the oppression of the faithful. ii. Prophecy of judgment on the oppressors. iii. Prayer or hymn of deliverance. — ***Zephaniah.*** Prophetic warning to Judah, with admonition and promise. — ***Haggai.*** Four prophecies, addressed to Zerubbabel and the people, urging the completion of the temple. — ***Zechariah.*** i–viii. Exhortations and Messianic visions addressed to the returned exiles. ix.–xiv. Messianic deliverance of Zion. — ***Malachi.*** Reproof of priests for laxity in service, and of the people for foreign intermarriage. Exhortations and prophecies for the faithful.
HAGIOGRAPHA. a ***Psalms***, five books (i.–xli., xlii.–lxxii., lxxiii.–lxxxix., xc.–cvi., cvii.–cl.) of hymns — personal, national, liturgical — of various authorship. — ***Proverbs.*** i.–ix. Discourses on wisdom. x.–xxii. "Proverbs of Solomon" on the conduct of life. xxii.–xxiv. "Words of the wise." xxv.–xxix. Proverbs collected by Hezekiah. xxx.–xxxi. Words of Agur, Lemuel's mother, etc. — ***Job.*** A poem representing chiefly colloquies between Job and his friends. Narrative prologue and epilogue in prose. — b The five festival rolls: ***Song of Solomon, Song of Songs, or the Canticles***, a love poem or group of poems that are capable of allegorical interpretation. — ***Ruth.*** Story of the Moabite ancestress of David. — ***Lamentations***

old'-la'dy·hood, *n.* See -HOOD.
old'ly, *adv.* of OLD, *adj.* Specif. Like an old person; of old, long ago. *Obs.*
old'-maid'en·ish, *adj.* = OLD-MAIDISH.
old'-maid'ish, old' maid'ism, etc. See -ISH, -ISM, etc.
old'-man's- pep'per. = YARROW a.
Old-School Baptists. = PRIMITIVE BAPTISTS. See BAPTIST.

jew'el (jōō'ĕl; jū'ĕl; -ĭl), *v. t.*; -ELED (-ĕld; -ĭld) or -ELLED; -EL·ING or -EL·LING. To dress, adorn, deck, or supply with jewels, as a dress or watch; to bespangle as with jewels.
jewel block. *Naut.* A block at the extremity of a yard, through which the halyard of a studding sail is rove.
jew'el·er, jew'el·ler (-ẽr), *n.* [OF. *juelier* (F. *joaillier*).] One who makes, or deals in, jewels, precious stones, etc.
jew'el·ers' ce·ment' (-ẽrz). Armenian cement.
jewelers' putty. Putty powder.
jewelers' rouge. See ROUGE, *n.*
jew'el·house' (jōō'ĕl·hous'; jōō'ĭl-; jū'ĕl-; -ĭl-; 242), *n.* A house for jewels; specif., the room where the British crown jewels are kept in the Tower of London.
jew'el·ing, jew'el·ling, *n.* **1.** Act or art of preparing jewels, or of applying jewels.
2. Ornamentation with bosses of glass or of glaze.
3. A dress trimming made of real or imitation jewels.
jewel of Jamshid. See JAMSHID.
jew'el·ry (jōō'ĕl·rĭ; jū'ĕl-; -ĭl·rĭ), *or, British,* **jew'el·ler·y** (jōō'ĕl·ẽr·ĭ; jū'ĕl-; -ĭl·rĭ), *n.* [OF. *juelerie* (F. *joaillerie*).] Jewels collectively; personal ornaments, as badges, bracelets, brooches, pendants, set or studded with jewels; as, a bride's *jewelry;* fraternity *jewelry;* hence, pieces of precious metals, crystal, etc., shaped and worn for adornment.
Jewel Song. An aria for soprano (Margarite) from the third act of Gounod's opera *Faust.*
jew'el·weed' (-wēd'), *n.* Either of two American plants of the genus *Impatiens, I. biflora* with orange-yellow, brown-spotted flowers (see WILD FLOWERS, *Plate*) and *I. pallida* with pale-yellow unmarked flowers.
jewelweed family. The Balsaminaceae.
jew'el·y, jew'el·ly (jōō'ĕl·ĭ; jū'ĕl·ĭ; -ĭl·ĭ; 242), *adj.* Having jewels; resembling jewels.
Jew'ess (jōō'ĕs; jū'ĕs; -ĭs; 119), *n.* A female Jew.
Jew'ett (jōō'ĕt; jū'ĕt; -ĭt; 242), *n.* Also **Jewett Red.** An American variety of apple with yellowish-red fruit.
jew'fish' (jōō'fĭsh'; jū'-), *n.*; *pl.* -FISH, -FISHES (-fĭsh'ĕz; -ĭz; 119). See PLURAL, *Note.* **1.** Any of certain large groupers (family Epinephelidae), usually dusky green, thickheaded, and rough-scaled, with a voracious but sluggish disposition. They frequent deep water in warm seas, and, though not highly valued as food, are prized by anglers. The largest species (*Promicrops lanceolata* of the South Pacific) reaches a length of twelve feet. That of the West Indies and west coast of Mexico is *Promicrops itaiara.* The jewfish of California (*Stereolepis gigas*) attains six feet in length. Cf. BLACK GROUPER **a.**

1/40 Jewfish (*Promicrops itaiara*).

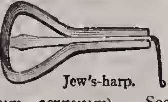
2. Any of various large fishes of other families, as the Australian *Glaucosoma hebraicum* of the Lutianidae and *Sciaena antarctica* of the Sciaenidae.
Jew'ish (jōō'ĭsh; jū'ĭsh; 242), *adj.* Of or pert. to Jews or Hebrews; characteristic of, or resembling, Jews or their customs; Israelitish.
Jewish calendar. A lunisolar calendar in use among Hebraic peoples, reckoning from the year 3761 B.C., the date traditionally given for the Creation. It received its present fixed form from Hillel II about 360 A.D. The present names of the months, which are Babylonian-Assyrian in origin, replaced older ones, as *Abib, Bul,* etc., at the time of the Babylonian Exile. Nineteen years constitute a lunar cycle, of which the 3d, 6th, 8th, 11th, 14th, 17th, and 19th years are leap years. The year 5682 [A.D. 1921–22] was the first year of the 300 lunar cycle. The common year is said to be a ***defective, regular,*** or ***perfect*** (or ***abundant***) ***year*** according as it has 353, 354, or 355 days. The leap year has an intercalary month, and a total of 383 (defective), 384 (regular), or 385 (perfect, or abundant) days. The calendar is complicated by various rules providing for the harmonious arrangement of festivals, etc. (see JEWISH HOLIDAYS), so that no simple perpetual calendar can be constructed. The following table gives the months in order, with the number of days assigned to each. Only three months vary in length. They are: Heshvan, which has 30 days in perfect years; Kislev, which has 30 days in regular and perfect years; and Adar, which has 30 days in leap years. The ecclesiastical year commences with Nisan and the civil year with Tishri. The date of the first of Tishri, or the Jewish New Year (Rosh Hashana), is also given for the Jewish years 5695–5720 (A.D. 1934–1959). From these tables it is possible to transform any Jewish date into Christian, or vice versa, for the years A.D. 1934–1959.

MONTHS OF THE JEWISH YEAR

1 **Tishri**.....30	5 **Shebat**....30	7 **Nisan**......30
2 **Heshvan**...29 (*r. & d.*) or 30 (*p.*)	6 **Adar**......29 or 30 (*l.*)	8 **Iyar**........29
3 **Kislev**.....29 (*d.*) or 30 (*r. & p.*)	—**Veadar**...29 (*occurring only in leap years*)	9 **Sivan**......30
4 **Tebet**.....29		10 **Tammuz**...29
		11 **Ab**.........30
		12 **Elul**.......29

JEWISH YEAR		A.D.	JEWISH YEAR		A.D.
5695 *d. l.*	begins	Sept. 10, 1934	5708 *p. l.*	begins	Sept. 15, 1947
5696 *p.*	"	" 28, 1935	5709 *p.*	"	Oct. 4, 1948
5697 *r.*	"	" 17, 1936	5710 *d.*	"	Sept. 24, 1949
5698 *p. l.*	"	" 6, 1937	5711 *r. l.*	"	" 12, 1950
5699 *d.*	"	" 26, 1938	5712 *p.*	"	Oct. 1, 1951
5700 *p. l.*	"	" 14, 1939	5713 *p.*	"	Sept. 20, 1952
5701 *r.*	"	Oct. 3, 1940	5714 *d. l.*	"	" 10, 1953
5702 *p.*	"	Sept. 22, 1941	5715 *r.*	"	" 28, 1954
5703 *d. l.*	"	" 12, 1942	5716 *p.*	"	" 17, 1955
5704 *r.*	"	" 30, 1943	5717 *p. l.*	"	" 6, 1956
5705 *p.*	"	" 18, 1944	5718 *r.*	"	" 26, 1957
5706 *d. l.*	"	" 8, 1945	5719 *d. l.*	"	" 15, 1958
5707 *r.*	"	" 26, 1946	5720 *p.*	"	Oct. 3, 1959

d. = defective year; *d. l.* = defective leap year; *p.* = perfect year; *p. l.* = perfect leap year; *r.* = regular year; *r. l.* = regular leap year.
Jewish Canon. See 1st CANON, 3 **a.**
Jewish day. The time between sunset and sunset.
Jewish holidays. The holidays observed in Judaism, esp.: ***Rosh Hashana,*** New Year, 1st and 2d of Tishri; ***Yom Kippur,*** Day of Atonement, 10th of Tishri; ***Sukkoth,*** Feast of Tabernacles, 15th to 22d (incl.) of Tishri; ***Simhath Torah,*** Rejoicing over the Law, 23d of Tishri; ***Hanukkah,*** Feast of the Dedication, 25th of Kislev to 1st of Tebet; ***Purim,*** Feast of Lots, 14th of Adar; ***Pesach,*** the Passover, 15th to 22d (incl.) of Nisan; ***Lag b'Omer,*** thirty-third day of counting the 'Omer; ***Shabuoth,*** Feast of Weeks, or Pentecost, seven weeks from 16th of Nisan, usually 6th of Sivan; ***Tishah b'ab*** or ***bov,*** fast day, 9th of Ab.
Jewish Mundane Era. See ERA, *Table.*
Jewish Pale. In Russia, a region with boundaries frequently changing, established in 1786 by ukase of Catherine II, in which Jews were compelled to live. In general it comprised certain towns in southwestern Russia and Poland.
Jewish Plato (plā'tō). Philo Judaeus, a noted Alexandrian Jew and philosopher of the 1st century.
Jewish Science. A healing cult, similar to Christian Science, but adapted by its founder, Rabbi Morris Lichtenstein, to persons with a Jewish background.
Jewish Territorial Organization. See ITO.
Jew'ism (jōō'ĭz'm; jū'-; 242), *n.* Judaism; also, a thing characteristic of Jews.
Jewkes, Mrs. (jōōks; jūks; 242). In Richardson's *Pamela,* an old procuress who is put in charge of Pamela.
Jew lizard. An Australian agamoid lizard (*Amphibolurus barbatus*); — so called because its gular pouch suggests a beard.
Jew monkey. Any of several species of sakis and macaques.
jew nail. A small headless nail of corrugated sheet metal having usually a width as great as its length.
Jew of Malta, The. The usual title of a tragedy by Marlowe (published 1633). See BARABAS.
Jew plum. = OTAHEITE APPLE **a.**
Jew'ry (jōō'rĭ; jū'rĭ; 242), *n.*; *pl.* JEWRIES (-rĭz). [ME. *Jewerie,* fr. OF. *juerie* (F. *juiverie*).] **1.** Judea; also, a district inhabited by Jews; Jews' quarter; a ghetto.
2. a *Obs.* Judaism. **b** The Jewish people or race.
Jews''–ap'ple (jōōz'ăp''l; jūz'-), *n.* The eggplant.
Jew's'–bush', *n.* The jewbush.
Jew's'–ear', *n.* **a** A widely distributed edible fungus (*Auricularia auricula-judae*) growing on decaying wood. **b** Any of several fungi of the genus *Peziza.* **c** *Local, Eng.* The tomato.
Jew's eye. Something of indefinitely great value; — so used, as in the old saying "worth a Jew's eye," in allusion to the former torture for extortion practiced upon Jews.
Jew's, *or* **Jews', frankincense.** = STORAX, 1.
jew's'–harp', jews''–harp', *n.* [*Jew + harp.*] **1.** A small lyre-shaped instrument which, when placed between the teeth, gives tones from a bent metal tongue struck by the finger. Modulation of tone is produced by changing the size and shape of the mouth cavity.



Jew's-harp.

2. The nodding trillium (*Trillium cernuum*). See TRILLIUM.
3. *Naut.* The ring of an anchor.
Jews' houses. Remains of ancient tin-smelting furnaces and miners' houses in Cornwall and Devon, England.
Jew's, *or* **Jews', lime** *or* **slime.** Jew's pitch; asphalt. *Obs.*
Jew's, *or* **Jews', mallow.** A stout herb (*Corchorus olitorius*) cultivated in Syria and Egypt as a pot herb, and in India for its jute fiber; also, the true jute plant.
Jew's, *or* **Jews', myrtle. a** The butcher's-broom. **b** The common myrtle.
Jew's, *or* **Jews', pitch.** Asphalt; bitumen of Judea.
Jew's'–stone', Jews''–stone', *or* **Jew'stone'** (jōō'stōn'; jū'-), *n.* **1.** A large clavate spine of a fossil sea urchin.
2. Usually *Jewstone.* A hard rock of uneven fracture; — applied locally to certain basalts, limestones, etc. *Dial. Eng.*
3. *Mineral.* = MARCASITE, 2.
Jews''–thorn', *n.* Christ's-thorn *Paliurus spinacristi.*
Jews' tin. Slabs of tin near the so-called Jews' houses.
Jew wattle. The wattle on the lower side of the base of the bill of a carrier pigeon.
je·zail' (jĕ·zīl'), *n.* Also **ju·zail'** (jŭ·zīl'). [Per. *jazā'il.*] A long, heavy Afghan gun or rifle.
Jez'e·bel (jĕz'ĕ·bĕl; -b'l), *n.* **1.** *Bib.* Daughter of Ethbaal, king of Tyre, and wife of Ahab, king of Israel. She introduced Baal worship, persecuted Elijah, instigated the murder of Naboth, and made her name a term of reproach.

> *Jezebel* . . . painted her face, and tired her head, and looked out at the window. 2 *Kings* ix. 30.

2. A wicked, bold, or abandoned woman.
— **Jez'e·be'li·an** (-bē'lĭ·ăn; 159), *adj.* — **Jez'e·bel'ish** (jĕz'ĕ·bĕl'ĭsh), *adj.*
jez'e·kite (jĕz'ĕ·kīt), *n.* [After B. *Ježek,* Czech mineralogist.] *Mineral.* A basic aluminum calcium sodium fluophosphate, occurring in colorless to white monoclinic crystals. H., 4.5. Sp. gr., 2.9.
jez'iah (jĕz'yȧ), *n.* Also **jez'ia.** [Ar. *jizyah.*] A capitation tax on unbelievers authorized by Mohammedan law; specif., that imposed by the Mogul emperors in India.
Jez're·el·ite (jĕz'rē·ĕl·īt), *n.* *Bib.* An inhabitant of Jezreel.
J function. *Math.* The Bessel function of the first kind.
jha'ral (jä'răl), *n.* [Nepali *jhāral.*] The tahr.
jheel, jhil (jēl), *n.* [Hind. *jhīl.*] A pool, marsh, or lake; specif., one left after an inundation. *India.*
J. H. Hale (hāl). [After *J. H. Hale,* Georgia peachgrower.] *Hort.* An extremely large and handsome variety of peach of increasing commercial importance.
jhool (jōōl), *n.* [Hind. *jhūl.*] Trappings for a horse, elephant, etc. *India.*
jhow (jou; 163), *n.* [Hind. *jhāū,* fr. Skr. *jhāvuka.*] An Indian tamarisk (*Tamarix gallica*), used for basketmaking. *India.*
Jhu'ri·a (jōō'rĭ·ȧ; 163), *n.* A division of the Gond.
jib (jĭb), *v. t. & i.*; JIBBED (jĭbd); JIB'BING. Also **jibb.** [Var. of JIBE.] *Chiefly Naut.* To shift, or swing round, as a sail, boom, yard, etc., as in tacking.
jib (jĭb), *n.* [Prob. named from its shifting or filling from side to side, and fr. JIB to shift.] **1.** *Naut.* A triangular sail set upon a stay or its own luff extending from the head of the foremast or foretopmast to the bowsprit or the jib boom. Large vessels usually carry several jibs; as, inner *jib,* outer *jib,* flying *jib,* etc. See SAIL, *Illust.*
2. The under lip; mouth; face; hence, talk; jaw. *Dial.*
— ***the cut of one's jib.*** See under 4th CUT.
jib (jĭb), *n.* [Appar. fr. GIBBET.] **1.** The projecting arm of a crane; also, a derrick boom; a gib.
2. A stand or rack, for barrels, etc. *Dial. Eng.*
jib, *v. i.* [Prob. fr. the *jibbing* of a sail. See JIB to shift.] Of an animal in harness, to move restively backward or sidewise; to refuse to go; to balk; also, to shy; to stop short or back out.
jib, *n.* **1.** One that jibs, or balks; a jibber.
2. A stationary condition; a standstill.
jib, *v. t.* To strip of possessions; to fleece; to drain dry. *Scot.*
jib'bah (jĭb'ȧ), *n.* Also **jib'ba** (-ȧ), **jib'beh** (-ĕ). [Egypt. var. of *jubbah.*] A long shirtlike garment with wide sleeves worn by women and children; a smock. Cf. JUBBAH.
jib'ber (jĭb'ẽr), *n.* One that jibs.
jib'ber (jĭb'ẽr), *v. i.* To jabber. *Rare.*
jibber the kibber, to. [Cf. JIB to shift, or JIB to shy.] *Naut.* To lure a vessel on shore by making a lantern rise and fall as if on a ship at sea.
jib'bings (jĭb'ĭngz; -ĭnz), *n. pl.* Strippings. *Scot.*
jib boom *or* **jib'boom'** (jĭb'bōōm'), *n.* [See 2d JIB.] *Naut.* A spar or boom which serves as an extension of the bowsprit. It is sometimes extended by another spar called the *flying jib boom.*
jib'by horse (jĭb'ĭ). A showman's horse in trappings. *Eng.*
jib crane. See 1st CRANE, 3, & *Illust.*
jib door. *Arch.* A door made flush with the wall, without dressings or moldings; a disguised door.
jibe (jīb), *v.*; JIBED (jībd); JIB'ING (jīb'ĭng). Also **gybe.** [D. *gijben, gijpen;* cf. Dan. *gibbe,* Sw. *gipa.* Cf. 1st JIB.] *Naut. Intransitive:* **1.** To shift suddenly and with force from one side to the other; — said of a fore-and-aft sail or its boom when the vessel is steered off the wind until the sail fills on the opposite side. Cf. TACK.
2. To change the course of a vessel so that the sail jibes.
——, *Transitive:* To cause (a vessel or a sail or its boom) to jibe. Cf. 3d WEAR, *v. t.,* 12.
jibe (jīb), *v. i.*; JIBED (jībd); JIB'ING (jīb'ĭng). [Origin uncert.] To agree; to harmonize; as, his words and actions do not *jibe.* *Colloq., U.S.*
jibe (jīb), **jib'er** (jīb'ẽr). Vars. of GIBE, GIBER.
jib guy. *Naut.* One of two or more lateral stays running to the head of the jib boom.
jib'head' (jĭb'hĕd'), *n.* *Naut.* A small iron bar for stretching the head of a jib when the point has been cut off.
jib'–head'ed, *adj.* *Naut.* Running up to a point at the head like a jib; — said of sails.
jib'–head'er, *n.* *Naut.* A jib-headed topsail.
ji'bi (jē'bē), *n.* A small extinct bird (*Hemignathus ellisianus*) of Oahu. It was chiefly yellowish green.
jib iron. A jib traveler.
jib'man (jĭb'măn), *n.*; *pl.* -MEN (-mĕn). A man who works at a jib in an iron foundry.
jib netting. A triangular safety netting rigged under a jib boom.
ji·bo'a (jĭ·bō'ȧ), *n.* Also **ji·bo'ya** (-yȧ). [Pg. *jiboia,* fr. Tupi *jiboya, giboia,* fr. *boi, boia,* serpent.] Any of several large South American boas.
jib'–o–jib', *n.* *Naut.* A small jib set outside of the flying jib.
jib pole. A gin pole as used in concrete work.
jib sheet. Either of two ropes, leading from the clew of a jib to port and starboard respectively, by which the sail is trimmed.
jib'stay' (jĭb'stā'), *n.* *Naut.* A stay on which a jib is set.
jib topsail. *Naut.* A small jib occasionally used and set above and outside of all the other jibs.
jib traveler. An iron ring to which the tack of the jib on some cutters is made fast and which travels on the bowsprit.
ji'ca·ma (hē'kä·mä; 162), *n.* [Sp. *jícama,* fr. Nahuatl *xicama, xicamatl,* lit., paper cup of water, fr. *xicalli* cup + *amatl* paper + *atl* water; — so called from the succulence of the tubers. Cf. JICARA, QUAUHXICALLI.] Any of several Mexican plants with edible roots or tubers, as: **a** A showy vine (*Exogonium bracteatum*) with a watery sweet root which is eaten raw or cooked on the Pacific coast. **b** A related plant (*Ipomoea jicama*) of Lower California. **c** The yam bean. **d** The tuber of a common garden dahlia (*Dahlia coccinea*).
Ji·ca'que (hē·kä'kā; 162), *n.* An Indian of a tribe, the **Ji·ca'ques** (-kāz; *Sp.* -kās), of primitive culture, of northern Honduras, which constitute an American Indian linguistic family (**Ji·ca'que·an** [-kā·ăn]).
ji'ca·ra (hē'kä·rä; 162), *n.* [Sp. *jícara,* fr. Nahuatl *xicalli,* lit., cup; — so called because cups were made from the gourds. Cf. JICAMA.] The calabash tree; a cup or bowl made from its gourd; hence, a tightly woven basket.
Ji'ca·ril'la (hē'kä·rēl'yä; -rē'yä; 162; 170), *n.* [Dim. of Sp. *jícara.* See JICARA.] See QUERECHO.
jiff (jĭf), *n.* A jiffy. *Colloq.*
jif'fle (jĭf''l), *v. i.* To move by fits and starts; fidget. *Now Dial.*
jif'fy (jĭf'ĭ), *n.*; *pl.* JIFFIES (-ĭz). [Origin unknown.] A moment; an instant; as, I will go in a *jiffy.* *Colloq.*
jig (jĭg), *v.*; JIGGED (jĭgd); JIG'GING (jĭg'ĭng). [OF. *giguer* to hop, dance, fr. *gigue* a fiddle, of Teut. origin; cf. ON. *gīgja,* G. *geige.* Cf. GIGOLO.] *Transitive:* **1.** To sing, play, or dance as a jig.

> *Jig* off a tune at the tongue's end. *Shak.*

2. To trick or cheat; to cajole; delude. *Obs.* *Ford.*
3. To give a jerky motion to; to jerk or jolt up and down, or to and fro; as, to *jig* a fishhook.
4. To catch (fish) with a jig, or by jerking a hook into one.
5. To drill (wells, etc.) with a spring pole. *U. S.*
6. To felt or condense by beating, as wool.
7. *Mach., Dyeing, etc.* To treat, cut, or form, in or with a jig, as a piece of metal in a jigging machine.
8. *Ore Dressing.* To separate, as ore from gangue, or coal from slate, by a rapid up-and-down motion, usually in water.
——, *Intransitive:* **1.** To dance a jig; to execute a lively dance.
2. To move with a skip or rhythm; to move with vibrations or jerks. "The fin would *jig* off slowly." *Kipling.*
3. a To fish with a jig. **b** To work with the aid of a jig.
jig (jĭg), *n.* [From JIG, *v.*] **1.** Any of several lively springy dances in triple rhythm; also, its music, commonly in six eighths. The jig was esp. popular in 16th and 17th century England and Scotland, and is still commonly danced in Ireland. The Irish jig is characterized by intricate and dexterous motions of the feet.

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jew'eld. Jeweled. *Ref. Sp.*
jew'el·less, *adj.* See -LESS.
jew'el·like', *adj.* See -LIKE.
jew'el·ly. Var. of JEWELY.
Jew'hood, *n.* See -HOOD.
jew'ing, *n.* [From resemblance to a *Jew's* hooked nose.] = JEW WATTLE.
Jew'ish·ly, *adv.* of JEWISH.
Jew'ish·ness, *n.* See -NESS.
Jew'less, *adj.* See -LESS.
Jew'like', *adj.* See -LIKE.
Jew'ling, *n.* See 1st -LING.
Jew'ship, *n.* See -SHIP.
jew's'-trump', jews''-trump', *n.* = JEW'S-HARP, 1. *Now Rare.*
Jew'y, *adj.* See -Y.
Jez'a·bad (jĕz'ȧ·băd). *D. Bib.*
Jez'a·bel (-bĕl). *D. Bib.*
Jez'a·ni'ah (jĕz'ȧ·nī'ȧ). *Bib.*
Jez'a·tha (jĕz'ȧ·thȧ). *D. Bib.*
Je·ze'lus (jĕ·zē'lŭs; jĕz'ĕ·lŭs). *Bib.*
Je'zer (jē'zẽr). *Bib.*
Je'zer·ites (-īts), *n. pl.* *Bib.*
Je·zi'a, Je·zi'ah (jĕ·zī'ȧ). *D. Bib.*
Je'zi·el (jē'zĭ·ĕl; jĕ·zī'ĕl). *Bib.*
Jez·li'a, Jez·li'ah (jĕz·lī'ȧ). *D. Bib.*
Je·zo'ar (jĕ·zō'ẽr). *Bib.*
Jez'o·ni'as (jĕz'ō·nī'ȧs). *D. Bib.*
Jez'ra·hel (jĕz'rȧ·hĕl). *D. Bib.*
Jez'ra·hel·ite (-īt). *D. Bib.*
Jez'ra·hel·it'ess (-īt'ĕs). *D. Bib.*
Jez'ra·hi'ah (jĕz'rȧ·hī'ȧ). *Bib.*
Jez'ra·i'a (-ī'ȧ). *D. Bib.*
Jez're·el (jĕz'rē·ĕl; -rēl). *Bib.*
Jez're·el·it'ess (-īt'ĕs). *Bib.*
jham'pan, jham·pa'ni. Vars. of JAMPAN, JAMPANI.
jha'na (jä'nȧ). Var. of DHYANA.
jhoom, jhum (jōōm). Vars. of JOOM.
JHS. See IHS.
jhu'la. Var. of JOOLA.
JHVH, JHWH. Vars. of YHWH. See TETRAGRAMMATON.
ji'ba·ro (hē'bä·rō). Var. of GIBARO.
Ji'ba·ro (-rō). Var. of JIVARO.
jibb. Var. of JIB, *n.* & *v.*
jib'bet. † GIBBET.
jib'bong (jĭb'ŏng). Var. of GEEBUNG.
jibd. Jibbed. *Ref. Sp.*
jib'let. Var. of GIBLET.
jiblet check, cheque, *or* **check.** Vars. of GIBLET CHECK.
Jib'sam (jĭb'săm). *Bib.*
Jid'laph (jĭd'lăf). *Bib.*

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pack is dealt out, with a widow to form stops. Eldest hand leads the lowest card in his hand of any suit he selects, and the others continue the sequence until a stop is reached. The last player then starts a suit with his lowest. As fast as cards matching those in the layout are got rid of in play, the holders take all the chips on those cards. Those not won remain and the layout is dressed again for the next deal.
New Mex'i·can (mĕk'sĭ-kăn), *adj.* Of or pert. to the State of New Mexico. — *n.* A native or inhabitant of New Mexico.
New Mexican piñon. The piñon *Pinus edulis.*
new'–mint', *v. t.* To coin anew; specif., to give a fresh meaning to, as a word or phrase.
New Model. *Eng. Hist.* The Parliamentary army as reorganized in 1645.
new moon. **a** The crescent moon before reaching first quarter; also, the phase when in conjunction with the sun. See 1st MOON, 1. **b** Day when the new moon is first seen. Among the Hebrews the period of the new moon was anciently regarded as a religious festival, in postexilic times celebrated chiefly by the women, but still marked by the ceremony of "Blessing the New Moon." The periodical reappearance of the moon is taken as a symbol of the Messianic redemption or renewal of Israel.
new'ness (nū'nĕs; -nĭs; 119), *n.* [AS. *nīwnes.*] Quality or state of being new; as, the *newness* of a system; *newness* of life.
New'ness, the. New England transcendentalism. *Hist.*
New Norwegian. See LANDSMAAL.
New Or'le·ans (ôr'lē·ănz *or, esp. in the phrases,* ôr·lēnz'). **1.** A city in the State of Louisiana.
2. See BATTLE, *Table.*
New Orleans molasses. See MOLASSES.
New Orleans moss. The long moss.
new parish. See PARISH, *n.*, 1 c.
New Place. Shakespeare's residence in Stratford from 1598 to his death in 1616.
New Platonism. Neoplatonism.
New'port (nū'pōrt; 181), *n.* [From *Newport*, R. I.] A game of tenpins in which the object is to knock down one or more pins in each of ten frames without duplicating a number scored in a previous frame. Three balls, not exceeding 6 inches in diameter, are allowed to a frame.
new realism. *Philos.* A form of realism which holds that knowledge is an identity, or partial identity, of the mind and the object known; — called also *neorealism.*
New Red Sandstone. *Geol.* An old name for an English series in which red sandstones of Triassic age predominate.
new'–rich', *adj.* Newly rich. — *n.* A nouveau riche.
news (nūz; 242), *n.; plural* in form but commonly construed as *sing.* [From NEW; cf. F. *nouvelles.*] **1.** Something strange or newly happened; novelties. *Obs.*
2. A report of a recent event; information about something before unknown; fresh tidings; recent intelligence.

> Evil *news* rides post, while good *news* baits. *Milton.*
> *News* have come to me respecting a dear friend. *Hawthorne.*

3. A bearer of news; courier. *Pepys.*
4. Matter adapted to gaining the interest of newspaper readers; material or event suitable for a news article; as, to distinguish between information and *news.*
5. Short for NEWSPRINT, NEWSPAPER, etc.
Syn. — NEWS, TIDINGS, INTELLIGENCE. NEWS is the general term; TIDINGS is now poetical or elevated; INTELLIGENCE is esp. news more or less formally communicated.
☞ COMBINATIONS and PHRASES are:
news-greedy news-making, *adj.* news-seeking, *adj.*
news item newsreader newsteller
news, *v. t. & i.* To tell news or as news; to gossip. *Now Dial.*
news agency. An agency for the collection of news to supply newspapers. See ASSOCIATED PRESS, HAVAS AGENCY.
news agent. **a** One who collects and supplies news. **b** A news dealer.
News Salon. See SALON, 3.
news bell. A singing in the ears supposed to portend news. *Dial.*
news'bill' (nūz'bĭl'), *n.* A bulletin containing news. *Brit.*
news'board' (-bōrd'; 181), *n.* A bulletin board for posting newsbills. *Brit.*
news'boat' (-bōt'), *n.* A boat which puts out to passing vessels to supply and receive news.
news'boy' (-boi'), *n.* A boy who distributes or sells newspapers.
news case. *Print.* One of a pair of type cases, an upper case and a lower case, especially arranged to facilitate newspaper composition.
New School. *Eccl.* The more liberal of two parties into which the Presbyterian Church in the United States was divided about 1825. It was organized as a separate church from 1838 to 1869, when a reunion was effected with the Old School, or more conservative party.
news dealer. One who sells newspapers, periodicals, etc.
news editor. The editor on a daily newspaper in immediate charge of the telegraphic news; also, sometimes, an editor in charge of local news, or of news gathering and editing in general.
New Side. *Eccl. Hist.* See PRESBYTERIAN, *adj.*
new silver. A color, yellow in hue, of low saturation and very high brilliance. Cf. COLOR.
news'let'ter (nūz'lĕt'ẽr), *n.* A circular letter written or printed for the dissemination of news. It was introduced into England from Europe in the latter part of the 17th century, and was the precursor of the newspaper.
news'man (nūz'măn; 242); *n.; pl.* -MEN (-mĕn). **a** *Now Rare.* A bearer of news. **b** A news writer; also, a newspaperman. **c** A man who distributes or sells newspapers.
news'mon'ger (-mŭng'gẽr), *n.* A gossipy person; one active in hearing and telling news. — **news'mon'ger·ing**, *n.* — **news'mon'ger·y** (-ĭ), *n.*
New South Wales. A State of the Commonwealth of Australia. See in *Gaz.*
New South Wales rosewood. Bastard rosewood.
New South Wales sassafras. Australian sassafras.
news'pa'per (nūz'pā'pẽr; nūs'-), *n.* A paper printed and distributed, at stated intervals, usually daily or weekly, to convey news, advocate opinions, etc., now usually containing also advertisements and other matters of public interest; also, an organization engaged in composing and issuing such a publication.
news'pa'per·ized (-īzd), *part. adj.* Affected by, or conformed to the standards of, newspaper writing.
news'pa'per·man' (-măn'), *n.; pl.* -MEN (-mĕn'). One who writes for, or one who owns or conducts, a newspaper.
newspaper post. See 6th MAIL, 3.
newspaper syndicate. **a** An organization which owns or controls a number of newspapers. **b** *U. S.* An organization for the sale of news, illustrations, or miscellaneous material to a number of periodicals for simultaneous publication.

news'pa'per·wom'an (nūz'pā'pẽr·wŏŏm'ăn; nūs'-), *n.; pl.* -WOMEN (-wĭm'ĕn; -ĭn; 119). A woman engaged in newspaper work.
news'pa'per·y (-ĭ), *adj.* Like, or in the manner of, newspaper writing; usually (in depreciation), superficial.
news'print' (nūz'prĭnt'), *n.* Cheap machine-finished paper made chiefly from wood pulp, and used mostly for newspapers.
news'reel' (nūz'rēl'), *n.* [*news* + *reel.*] *Motion Pictures.* A reel of motion pictures portraying current events.
news'room' (-rōōm'; 200; 242), *n.* **1.** A room or place where newspapers or periodicals are sold.
2. A reading room having newspapers, magazines, etc.
news'sheet' (nūz'shēt'), *n.* A newspaper. *Colloq.*
news'stand' (-stănd'), *n.* A place, esp. an open-air stall, for the sale of newspapers, periodicals, etc.
new star. *Astron.* A nova.
New Style. See CALENDAR, 1. Abbr. *N.S.*
news vendor. A seller of newspapers.
news writer. A writer of news; esp., formerly, a person who gathered news for, and wrote, newsletters.
news'y (nūz'ĭ), *adj.;* NEWS'I·ER (-ĭ·ẽr); NEWS'I·EST. Abounding in news. — **news'i·ness** (nūz'ĭ·nĕs; -nĭs; 119), *n. Both Colloq.*
news'y, *n.* Newsboy. *Colloq., U.S.*
newt (nūt), *n.* [ME. *newte*, for *ewte, evete*, fr. AS. *efete.* *Newt*, with initial *n*-, arose through the incorrect division of *an ewt* as *a newt* (cf. ADDER). See EFT.] Any of various small salamanders of semiaquatic habits, esp. those of the genus *Triturus* (syn. *Triton*); an eft or triton. Among the species occurring in Europe and Great Britain are: the ***crested newt*** (*T. cristatus*), with the male conspicuously crested in the breeding season; the ***palmated newt*** (*T. palmipes*), with the feet webbed; and the common ***smooth***, or ***spotted, newt*** (*T. vulgaris*, syn. *punctatus*), with the lower parts yellow spotted with black. The American species include *T. torosus* and *T. viridescens* (see GIANT NEWT and RED EFT).
new'take' (nū'tāk'), *n.* [*new* + *take.*] A portion of moorland assigned to a person for enclosure and cultivation. *Eng.*
New Testament. The covenant of God with man embodied in the coming of Christ and the teaching of Christ and his followers as set forth in the Bible; hence, usually, that portion of the Bible in which this covenant is contained. Abbr. *N. T.*, *New Test.* The canonical books of the New Testament are: PAULINE EPISTLES. **a** *First Period:* ***Galatians***, which insists on freedom from the yoke of the Jewish law, and vindicates Paul's apostleship; 1 ***Thessalonians***, containing practical directions and the assurance that the deceased will share in the Messianic resurrection; 2 ***Thessalonians***, correcting misunderstanding of the eschatology of the previous letter; 1 & 2 ***Corinthians***, which seek to allay contention, give instruction on the eating of meats offered to idols, speaking with tongues, the administration of the Lord's Supper, eschatology, Christian morality, etc.; ***Romans***, dealing especially with the drama of salvation through Christ, of the place of the law as a preparation, and of the position of Israel in the scheme of salvation. **b** *Second Period* (*Epistles of the Captivity*): ***Philemon***, a personal letter, which commends the runaway slave, Onesimus, to his master's forgiveness; ***Philippians***, ***Ephesians***, and ***Colossians***, called the *Christological Epistles*, which deal with the place of Christ in the divine plan, rebuke false teaching, and inculcate purity of life. THE SECONDARY CANON OF PAULINE EPISTLES (now commonly regarded as not Pauline in their present form). 1 & 2 ***Timothy*** and ***Titus***, called the *Pastoral Epistles*, dealing with the duties of a minister and the refutation of heresy; ***Hebrews***, which sets forth the superiority of the high priesthood of Christ, according to the type of Melchizedek, and to that of Aaron, and explains the nature of faith. CATHOLIC EPISTLES. 1 ***Peter***, which urges Christians, the redeemed people of God, to bear persecution in meekness; ***James***, which emphasizes the ethical rather than the doctrinal, and inveighs against social discriminations in violation of the law of love; ***Jude***, which denounces libertine teachers and holds to the apostolic word; 2 ***Peter***, which explains the delay in Christ's coming. HISTORICAL BOOKS. **a** *Synoptic Gospels:* ***Mark***, which relates the public ministry of Jesus chiefly in Galilee and within the compass of a year; ***Matthew*** and ***Luke***, which add to the framework of Mark the sayings of Jesus taken from the Second Source (see Q). **b** ***Acts of the Apostles***, which relates the founding of the church by Peter and Paul. JOHANNINE EPISTLES. ***Revelation***, which apportions praise and blame to the seven churches, and describes symbolic visions of the persecution of the church, of the last judgment, and of the New Jerusalem; the *Johannine Epistles*, 1, 2, & 3 ***John***, which emphasize love and combat Gnostic heresies; the ***Gospel of John***, which casts the public ministry of Jesus into a framework of Jewish feasts calling for something over two years, places the scene chiefly in Jerusalem, and casts the subject matter into the form of great symbolic discourses.
new theology. Any of various departures from strict Christian Protestant orthodoxy, as, in the last quarter of the 19th century, the teachings of professors in Andover Theological Seminary, or, in the 20th century, the teachings of Rev. R. J. Campbell, minister of the City Temple, London.
New Thought. Any form of modern belief in and practice of mental healing other than those associated with traditional Christianity, Christian Science, and hypnotism and psychotherapy. Locally and in its various separate developments it is known by other names, as *Mental Science*, *Metaphysical Healing*, *Practical Christianity*, *Higher Thought.* See also DIVINE SCIENCE CHURCH. Its characteristic doctrines are the divine immanence, that man's true self is God, that thoughts are forces, and especially that all disease and failure are mental in origin and may be controlled by one's mental attitude. — **New Thought'er, New Thought'ist.**
New·to'ni·an (nū·tō'nĭ·ăn; 159), *adj.* Of, pert. to, or following, Sir Isaac Newton (1642–1727), his discoveries, or doctrines. — *n.* **a** A follower of Newton. **b** A Newtonian telescope. — **New·to'ni·an·ism** (-ĭz'm), *n.*
Newtonian constant of gravitation. *Physics.* The gravitational attraction between two particles of matter, each of unit mass, at a unit distance apart. Expressed in C.G.S. units, it has been found to be 6.6577×10^{-8}.
Newtonian philosophy. The philosophy of Sir Isaac Newton; — applied to the doctrine of the universe as expounded in Newton's *Principia*, and most frequently to his mathematical theory of universal gravitation.
Newtonian potential. *Physics.* A potential in a field of force obeying the inverse square law.
Newtonian telescope. See TELESCOPE.
Newtonian theory. See LIGHT, n., 18 a.
New·ton'ic (nū·tŏn'ĭk), *adj.* Newtonian.

new'ton·ite (nū'tŭn·īt; -t'n·īt), *n.* [From *Newton* Co., Arkansas.] *Mineral.* A hydrous aluminum silicate of the clay group, occurring in soft, white, compact masses.
New'ton's al·loy' *or* **met'al** (nū'tŭnz; -t'nz). See FUSIBLE METAL, *Table.*
Newton's disk. A disk divided into sectors of proper relative dimensions, bearing the different colors of the spectrum, so that fusion of the colors by rotation gives a white or gray.

Newton's Disk. *R* Red; *O* Orange; *Y* Yellow; *G* Green; *B* Blue; *I* Indigo; *V* Violet.

Newton's laws of motion. *Physics.* See LAWS OF MOTION.
Newton's problem. The problem, proposed by Sir Isaac Newton, of finding mathematically from mutual gravitational attractions the positions and motions at any time of the bodies of the solar system, given these data for any particular time.
Newton's rings. *Physics.* Colored rings due to light interference, seen about the contact of a convex lens with a plane surface, or of two lenses differing in curvature.
New'town' Pip'pin (nū'toun'). *Hort.* The Yellow Newtown.
New Troy. See 3d BRUT.
New Venus. *Astron.* The nova of 1572 in Cassiopeia; Tycho's star.
New World. The land of the Western Hemisphere.
new year. **1.** The year approaching or just begun; also, the first days of a year; also, New Year's Day.
2. [*caps.*] The first day of Tishri (Rosh Hashana), and, with many orthodox Jews, the second day also. See JEWISH CALENDAR.
new'–year', *adj.* Also **new year's, New Year's.** Of, pertaining to, or suitable for, the commencement of the year; as, *new-year* resolutions.
New Year's Day, *or, Colloq.*, **New Year's.** The first day of a calendar year; the first day of January. The beginning of the year in most Christian countries was March 25 during the Middle Ages; changed to January 1 in many European countries in the 16th century, in Scotland in 1600, and in England in 1752. For the Chinese New Year, see CHINESE CALENDAR. See NEW YEAR, 2.
New Year's Eve. The evening or, by extension, day, before New Year's Day; the last evening, or day, of the year.
New York. **a** A State of the United States of America. **b** A city in that State, the largest in the United States.
New York aster. An erect perennial herb (*Aster novi-belgii*) of northeastern North America, with slender, lanceolate leaves and showy violet-rayed heads.
New York'er, *n.* A native or inhabitant of New York.
New York fern. A slender shield fern (*Dryopteris noveboracensis*) of moist woods in eastern North America.
New York ironweed. See IRONWEED.
New York plaice. The windowpane (flounder).
New York point. A modification of Braille (which see).
New York rod. See LEVELING ROD.
New York weasel. A weasel (*Mustela noveboracensis*).
New York weevil. The peach weevil.
New Zea'land (nū zē'lănd). A group of South Pacific islands constituting a British colony. Abbr. *N. Z.*
New Zealand birch. Any New Zealand tree of the genus *Nothofagus.*
New Zealand bramble. A leafless prickly bramble (*Rubus australis*) of New Zealand. It forms impenetrable thickets, and is also called *wait-a-bit* and *bush lawyer.*
New Zealand broom. Any plant of the genus *Carmichaelia*, family Fabaceae, esp. *C. australis.*
New Zealand bur. Any of several species of *Acaena.*
New Zealand cotton. A substance consisting of the strong bast fiber of the New Zealand ribbon tree (*Plagianthus betulinus*).
New Zea'land·er (zē'lăn·dẽr), *n.* A native or inhabitant of New Zealand.
New Zealand flax *or* **hemp.** **a** A tall New Zealand herb (*Phormium tenax*) having erect, sword-shaped leaves and scarlet or yellow flowers. **b** The strong fiber from its leaves, used for cordage, twine, mattings, etc.
New Zealand frog. A rare discoglossoid toad (*Liopelma hochstetteri*) peculiar to New Zealand, and the only amphibian known from that subregion.
New Zealand holly. A New Zealand prickly-leaved shrub (*Olearia ilicifolia*).
New Zealand laurel *or* **sassafras.** **a** An aromatic shrub (*Laurelia novae-zelandiae*), family Monimiaceae. **b** The plant *Corynocarpus laevigatus.* See CORYNOCARPUS.
New Zealand oak. **a** The puriri. **b** The rewa-rewa.
New Zealand oat grass. See GRASS, *Table.*
New Zealand palm. The nikau.
New Zealand pepper tree. An aromatic and pungent evergreen tree (*Drimys axillaris*).
New Zealand region. *Biogeog.* A terrestrial division including New Zealand and a few adjacent islands. When included in the Australian region it is called the **New Zealand subregion.** It is characterized by the absence of indigenous land mammals except bats, and by many peculiar birds.
New Zealand sandalwood. A New Zealand tree (*Fusanus cunninghamii*), family Santalaceae, with fragrant dark-brown wood, used in cabinetwork, etc.
New Zealand spinach *or* **ice plant.** A coarse annual, chiefly Australasian and Japanese herb (*Tetragonia expansa*), family Aizoaceae, used as a substitute for spinach.
New Zealand teak. The puriri.
New Zealand tea tree. The tea tree *Leptospermum scoparium*, of New Zealand and Australia.
New Zealand water lily. An aquatic crowfoot (*Ranunculus lyallii*) having white flowers.
New Zealand white pine. Kahikatea.
nex'al (nĕk'săl; -s'l), *adj.* *Rom. Law.* Of or pertaining to, or of the nature of, the contract of nexum.
next (nĕkst), *adj.*, *superl.* of NIGH. [AS. *nēhst*, *nīehst*, *nȳhst*, superl. of *nēah* nigh. See NIGH.] **1.** Nearest; having nothing similar intervening; as: **a** Adjoining in a series; immediately preceding or following in order; as, in reference to place: the *next* chapter; the *next* house; in reference to degree, quality, rank, right, or relation: the *next* heir; *next* of kin; in reference to time: the *next* day; *next* Monday.
☞ In Scottish use *next* is often employed to designate the days of the following week.
b Following that approaching (as a season), or in progress (as a piece of work); as, I cannot go this Christmas, but I hope to go *next* (Christmas). **c** First in nearness, without implication of succession or contiguity; first located, appearing, happening, or the like; as, his *next* neighbor was five miles away.
2. Most pressing, convenient, ready, direct, or the like; as, the *next* remedy. *Obs.* "I fled the *next* way." *Bunyan.*

news'book', *n.* A newspaper. *Obs.* — news'ful, *adj.* See -FUL.
news'less, *adj.* See -LESS. — news'less·ness, *n.*
news'pa'per·dom (nūz'pā'pẽr·dŭm), *n.* See -DOM.
news'pa'per·ese', *n.* See -ESE. — news'pa'per·ish, *adj.* See -ISH.
New Testament Apocrypha. See APOCRYPHA b.
New'ton·ist (nū'tŭn·ĭst; -t'n·ĭst), *n.* A Newtonian.

ap′john·ite (ăp′jŏn·īt), *n.* [After J. *Apjohn* (1796–1886), Ir. chemist.] *Mineral.* A manganese alum, $MnSO_4.Al_2(SO_4)_3.24H_2O$, occurring in crusts or fibrous masses.

a′pla·cen′tal (ā′plȧ·sĕn′tăl; ăp′lȧ-), *adj.* **a** Having or developing no placenta. **b** Belonging to the Aplacentalia.

A′plac·en·ta′li·a (ā′plăs·ĕn·tā′lĭ·ȧ), **A′plac·en·ta′ri·a** (-tā′rĭ·ȧ), **A′plac·en·ta′ta** (-tā′tȧ), *n. pl.* [NL.] Those mammals (the monotremes and most marsupials) which develop no placenta during gestation.

Ap′la·coph′o·ra (ăp′lȧ·kŏf′ō·rȧ), *n. pl.* [NL., fr. *a-* not + Gr. *plakous* a flat cake + *pherein* to bear.] *Zool.* An order of mollusks of the class Amphineura in which the body is without shelly plates but the mantle bears numerous calcified spicules over its entire surface. — **ap′la·coph′o·ran** (-răn), *adj. & n.* — **ap′la·coph′o·rous** (-rŭs), *adj.*

ap′la·nat′ (ăp′lȧ·năt′), *n.* [G.] An aplanatic lens.

ap′la·nat′ic (-năt′ĭk), *adj.* [*a-* not + Gr. *planatikos* wandering.] *Optics.* Corrected for spherical aberration; as, an *aplanatic* lens, a symmetrical double objective which does not give anastigmatic flattening of the field. — **ap′la·nat′i·cal·ly** (-ĭ·kăl·ĭ), *adv.*

aplanatic focus. *Optics.* In a lens, the point from which diverging rays proceed without spherical aberration.

a·plan′a·tism (ȧ·plăn′ȧ·tĭz′m), *n.* Freedom from spherical aberration.

a·plan′o- (ȧ·plăn′ō-). *Bot.* A combining form from Greek *aplanēs*, fixed, as in *aplano*spore.

A·plan′o·bac′ter (-băk′tẽr), *n.* [NL., fr. *aplano-* + *-bacter.*] *Bacteriol.* A formerly recognized genus of nonmotile, spore-bearing, rod-shaped bacteria now classed in *Bacillus.* It included *B. anthracis.*

a·plan′o·ga·mete′ (ȧ·plăn′ō·gȧ·mēt′), *n.* *Bot.* A nonmotile gamete, found in certain lower algae. Cf. PLANOGAMETE.

a·plan′o·spore (ȧ·plăn′ō·spōr; 181), *n.* [*aplano-* + *-spore.*] *Bot.* A nonmotile asexual spore formed by rejuvenescence in certain green algae, as *Acetabularia.* Cf. AKINETE.

a·pla′si·a (ă·plā′zhĭ·ȧ; -zhȧ), *n.* [NL. See A- not; -PLASIA.] *Med.* Incomplete or faulty development.

a·plas′tic (ȧ·plăs′tĭk), *adj.* **1.** Not plastic or easily molded. **2.** *Biol.* Not plastic; not exhibiting growth or change in structure. **3.** *Med.* Pertaining to or exhibiting aplasia.

aplastic anemia. *Med.* A special form of anemia in which the blood-forming power of the bone marrow is defective.

A·plec′trum (ȧ·plĕk′trŭm), *n.* [NL., fr. Gr. *a-* without + *plēktron* spur (which the plants lack).] *Bot.* A monotypic genus of North American herbs of the orchid family (Orchidaceae), consisting of the puttyroot. See PUTTYROOT.

a·plen′ty (ȧ·plĕn′tĭ), *adj.* Abundant; enough; in plenty or in abundance; as, money *aplenty* for his needs.

a·plen′ty, *adv.* Plentifully; abundantly; hence, very much; as, scared *aplenty.* *Slang.*

a·plen′ty, n., *or* **a plenty.** = PLENTY, 1 & 3. *Chiefly U.S.*

ap′lite (ăp′līt), *n.* Also **hap′lite** (hăp′-). [Gr. *haploos* simple + *-ite.*] *Petrog.* A fine-grained, saccharoidal, leucocratic differentiation rock; as, diorite-*aplite;* syenite-*aplite;* specif., a granite-aplite, a differentiate of granite consisting almost entirely of quartz and feldspar and generally occurring in dikes. — **ap·lit′ic** (ăp·lĭt′ĭk), *adj.*

ap′lo- (ăp′lō-). Var. of HAPLO-, as in **ap′lo·ba·salt′** (-bȧ·sôlt′; -băs′ôlt), **ap′lo·di′o·rite** (-dī′ō·rīt).

Ap′lo·don′ti·a (ăp′lō·dŏn′shĭ·ȧ), *n.* [NL., fr. *apl-* + *-odontia.*] *Zool.* The genus consisting of the sewellels. It is the type of a family, **Ap′lo·don·ti′i·dae** (-dŏn·tī′ĭ·dē).

a·plomb′ (ȧ·plŏm′; *F.* ȧ′plôɴ′), *n.* [F., fr. *à* to + *plomb* lead. See PLUMB.] Literally, perpendicularity; hence, self-assurance; self-possession; poise.

Syn. — See CONFIDENCE.

‖**à plomb′** (ȧ plôɴ′). [F.] Perpendicularly; fig., directly.

ap′lome (ăp′lōm), *n.* [Gr. *haploos* simple.] *Mineral.* A dark-brown or green variety of andradite, containing manganese. See GARNET.

Ap′lo·pap′pus (ăp′lō·păp′ŭs), *n.* [NL., fr. *aplo-* + *pappus.*] *Bot.* A genus of plants of the thistle family, the species of which are now generally transferred to other genera, as *Stenotus, Pyrrocoma, Eriocarpum.*

ap′lo·per′i·stom′a·tous (-pĕr′ĭ·stŏm′ȧ·tŭs; -stō′mȧ-), *adj.* [*aplo-* + *peristome.*] *Bot.* Of mosses, having a single row of teeth, or none, in the peristome.

ap′lo·stem′o·nous (-stĕm′ō·nŭs; -stē′mō-), *adj.* [*aplo-* + *-stemonous.*] *Bot.* Having only one row of stamens.

ap′lo·tax′ene (-tăk′sēn), *n.* [*aplo-* + *-taxis.*] *Chem.* A liquid hydrocarbon, $C_{17}H_{28}$, found in costus oil.

a·plot′o·my (ȧ·plŏt′ō·mĭ), *n.* [*aplo-* + *-tomy.*] *Surg.* Simple incision.

A·plu′da (ȧ·plōō′dȧ), *n.* [L., chaff.] *Bot.* A genus of grasses consisting probably of one species, *A. mutica,* widely distributed in Asia, Africa, and Australia. It has creeping or climbing stems with small fascicled racemes.

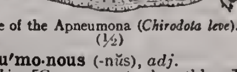
a·plus′tre (ȧ·plŭs′trē), *n.; pl.* -TRIA (-trĭ·ȧ) or -TRA (-trȧ). [L., fr. Gr. *aphlaston.*] *Gr. & Rom. Antiq.* The curved end of a ship's keel at the stern, with the stern ornament; also, the ornament alone.

ap·ne′a, ap·noe′a (ăp·nē′ȧ), *n.* [NL., fr. *a-* not + *pnoiē,* breath.] *Med.* **a** Partial privation or suspension of breath. **b** Asphyxia. — **ap·ne′al, ap·noe′al** (-ăl), **ap·ne′ic, ap·noe′ic** (-ĭk), *adj.*

ap′neu·mat′ic (ăp′nū·măt′ĭk), *adj.* [Gr. *apneumatos* not blown through. See A- not; PNEUMATIC.] **1.** *Med.* Devoid of air; free from air; as, an *apneumatic* lung; also, effected by or with exclusion of air; as, an *apneumatic* operation. **2.** Nonspiritual.

ap·neu′ma·to′sis (ăp·nū′mȧ·tō′sĭs), *n.* [NL. See APNEUMATIC; -OSIS.] Atelectasis.

Ap·neu′mo·na, Ap·neu′mo·nes (ăp·nū′mō·nȧ, -nēz), *n. pl.* [NL., fr. *a-* not + Gr. *pneumōn, -monos,* a lung.] *Zool.* A group (formerly an order) of holothurians in which the internal respiratory organs are wanting; — nearly equivalent to *Apoda* (sense **a**). — **ap·neu′mo·nous** (-nŭs), *adj.*



One of the Apneumona (*Chirodota leve*). (½)

ap·neus′tic (ăp·nūs′tĭk), *adj.* [Gr. *apneustos* breathless.] *Zool.* Having all the spiracles or tracheal stigmata closed; — said of certain insect larvae.

ap′o- (ăp′ō-), **ap-, aph-.** [Gr., fr. *apo,* prep. See OF.] **1.** A prefix signifying *from, away from, off,* as in *apocope,* a cutting off; *apostasy,* literally, a standing off; *apostle,* one sent away; or *asunder, detached, separate,* as in *apocarpous,* having the carpels distinct. **2.** *Chem.* A prefix designating a compound, as an alkaloid, formed from, or related to, the compound (of the same general nature) to the name of which it is prefixed. The following is a partial list of names so formed:

apoaconitine	apocinchonine	apoquinamine
apocaffeine	apocrenic	apoquinine
apocamphoric	apofenchene	aposafranine
apocholic	apoharmine	apoturmeric

3. *Petrog.* A prefix used in naming lavas, usually geologically ancient but now holocrystalline, whose structures may show traces of original glassy states, as in *apo*rhyolite.

ap′o·at′ro·pine (ăp′ō·ăt′rō·pēn; -pĭn), *n.* [See APO-.] *Chem.* A bitter crystalline alkaloid, $C_{17}H_{21}NO_2$, occurring naturally in belladonna root or prepared synthetically by the action of nitric acid on atropine; — called also *atropamine.* It is not a mydriatic.

ap′o·bi·ot′ic (ăp′ō·bī·ŏt′ĭk), *adj.* [*apo-* + *-biotic.*] *Physiol.* Of or pertaining to any change which diminishes the vital energy of the protoplasm of a tissue.

ap′o·blast (ăp′ō·blăst), *n.* [*apo-* + *-blast.*] **a** *Zool.* = POLAR BODY, 2. **b** *Bot.* A barren shoot.

a·poc′a·lypse (ȧ·pŏk′ȧ·lĭps), *n.* [L. *apocalypsis,* fr. Gr. *apokalypsis,* fr. *apokalyptein* to uncover, to disclose, fr. *apo* from + *kalyptein* to cover, conceal.] **1.** [*cap.*] The last book of the New Testament, otherwise called *The Revelation of St. John the Divine.* **2.** Any writing professing to reveal the future; esp., such a writing in early Christian circles or, in Jewish circles, between about 200 B.C. and 100 A.D. **3.** Anything viewed as a revelation; a disclosure.

a·poc′a·lypst (-lĭpst), *n.* A writer or interpreter of apocalypses.

a·poc′a·lypt (-lĭpt), *n.* The or an apocalyptist.

a·poc′a·lyp′tic (ȧ·pŏk′ȧ·lĭp′tĭk), **a·poc′a·lyp′ti·cal** (-tĭ·kăl), *adj.* [Gr. *apokalyptikos.*] **1.** Of or pertaining to a revelation, or, specif., to *The Revelation of St. John;* containing, of the nature of, or having to do with, prophetic revelation. **2.** Resembling the Apocalypse or an apocalypse, esp. in some particular, as splendor, magnitude, confusion, or hiddenness of meaning. — **a·poc′a·lyp′ti·cal·ly** (-tĭ·kăl·ĭ), *adv.*

a·poc′a·lyp′tic, *n.* **1.** The writer of the Apocalypse. **2.** Apocalyptic teachings or writings; specif., apocalyptic literature (which see).

a·poc′a·lyp′ti·cism (-tĭ·sĭz′m), *n.* **1.** *Theol.* Expectation of cataclysmic revelation, as in millenarianism. See APOCALYPTIC LITERATURE. **2.** The practice of, or addiction to, interpreting or applying prophetic revelation.

apocalyptic literature. A class of Jewish and Christian writings beginning about 250 B.C. and continuing into the opening centuries A.D. They aimed to comfort the faithful in their suffering condition, and reconcile that condition with God's righteousness by prefiguring the future triumph of Israel or the Messianic kingdom. The best-known Christian apocalypse is the Book of Revelation. Apocalypses of the various apostles belong to the New Testament Apocrypha. Cf. PSEUDEPIGRAPHA.

Prophecy and *apocalyptic* both claim to be a communication through the Divine Spirit of the character and purposes of God and his kingdom. Prophecy believes that God's goodness will be justified in this world; *apocalyptic* almost wholly despairs of the present, and its main interests are supramundane. Hence its adoption of pseudonymous authorship. *Dict. of Bible (Hastings).*

apocalyptic number. The number 666, applied to the Beast in Revelation xiii. 18.

a·poc′a·lyp′tist (ȧ·pŏk′ȧ·lĭp′tĭst), *n.* The writer of the Apocalypse or of any apocalyptic writing.

ap′o·carp (ăp′ō·kärp), *n.* *Bot.* An apocarpous gynoecium.

ap′o·car′pous (-kär′pŭs), *adj.* [*apo-* + *-carpous.*] *Bot.* Having the carpels of the gynoecium separate, as in the buttercup; — opposed to *syncarpous.*

ap′o·car′py (ăp′ō·kär′pĭ), *n.* *Bot.* State of being apocarpous.

ap′o·ca·tas′ta·sis (-kȧ·tăs′tȧ·sĭs), *n.* [L., fr. Gr. *apokatastasis* complete restoration.] Literally, restitution; restoration; specif.: **a** *Med.* Subsidence of a tumor or abscess. **b** *Theol.* The doctrine, orig. formulated by Origen (about 185–254 A.D.) and frequently revived, of the final restoration of all sinful beings to God and to the state of blessedness. Cf. RESTORATIONISM, UNIVERSALISM. **c** *Astron.* Periodic return of a planet to the same orbit position. — **ap′o·cat′a·stat′ic** (-kăt′ȧ·stăt′ĭk), *adj.*

ap′o·ca·thar′sis (ăp′ō·kȧ·thär′sĭs), *n.* [NL., fr. Gr. *apokatharsis* excretion.] *Med.* Catharsis.

ap′o·cen′ter, -cen′tre (ăp′ō·sĕn′tẽr), *n.* That point of an orbit farthest from the center of attraction.

ap′o·cen′tric (-sĕn′trĭk), *adj.* [*apo-* + *-centric.*] *Biol.* Deviating from the archetype; — opposed to *archecentric.* — **ap′o·cen·tric′i·ty** (-sĕn·trĭs′ĭ·tĭ), *n.*

ap′o·cha (ăp′ō·kȧ), *n.; pl.* -CHAE (-kē). [L., fr. Gr. *apochē* receipt.] *Rom. & Civil Law.* A receipt for the payment of money, the corresponding acknowledgment of indebtedness partly or wholly paid being *antapocha.* In Scots law, in case of periodical payments, three consecutive discharges (**ap′o·cha tri′um an·no′rum** [trī′ŭm ă·nō′rŭm]) of the yearly or termly dues presumes the payment of all preceding.

ap′o·chro·mat′ (ăp′ō·krō·măt′), *n.* [G.] An apochromatic lens.

ap′o·chro·mat′ic (-krō·măt′ĭk), *adj.* [*apo-* + *chromatic.*] *Optics.* Free from chromatic and spherical aberration; — said esp. of a lens in which rays of three or more colors are brought to the same focus, the degree of achromatism thus obtained being more nearly complete than where two rays only are thus focused. — **ap′o·chro′ma·tism** (-krō′mȧ·tĭz′m), *n.*

ap′o·co′de·ine (-kō′dē·ēn; -ĭn), *n.* [*apo-* + *codeine.*] *Chem.* An artificial alkaloid, $C_{18}H_{19}NO_2$, prepared from codeine. In its action it resembles codeine but is weaker.

a·poc′o·pate (ȧ·pŏk′ō·pāt), *v. t.* [NL. *apocopatus,* past part. of *apocopare* to cut off. See APOCOPE.] *Gram.* To cut short by apocope. — **a·poc′o·pa′tion** (-pā′shŭn), *n.*

a·poc′o·pate (-pāt), **a·poc′o·pat′ed** (-pāt′ĕd; -ĭd; 119), *adj.* Shortened by apocope; as, an *apocopate* form.

a·poc′o·pe (-pē), *n.* [L., fr. Gr. *apokopē* a cutting off, fr. *apokoptein* to cut off, fr. *apo* from + *koptein* to cut.] **1.** *Gram.* The loss or omission of the last sound, letter, or syllable of a word (*sing,* from AS. *singan; I,* from AS. *ic; th'* for *the*). **2.** *Med.* A cutting off; amputation; abscission. — **ap′o·cop′ic** (ăp′ō·kŏp′ĭk), *adj.*

ap′o·cris′i·ar′y (ăp′ō·krĭs′ĭ·ĕr′ĭ; -ĕr·ĭ), *n.; pl.* -IES (-ĭz). Also ‖**ap′o·cri′si·a′ri·us** (-ā′rĭ·ŭs); *pl.* -RII (-rĭ·ī). [LL. *apocrisiarius, apocrisarius,* fr. Gr. *apokrisis* answer, fr. *apokrinesthai* to answer, fr. *apo* from + *krinein* to separate.] Literally, one having to do with answers; hence, any of various delegatory officials, esp. the representative or secretary of the Pope or a chief see at Constantinople or, later, at the Carolingian court.

ap′o·crus′tic (ăp′ō·krŭs′tĭk), *adj.* [Gr. *apokroustikos* able to drive off.] *Med.* Astringent and repellent. — *n.* An apocrustic medicine.

ap′o·cryph (ăp′ō·krĭf), *n.* Apocryphal writing or document.

A·poc′ry·pha (ȧ·pŏk′rĭ·fȧ), *n. pl.,* but often erroneously used as *sing.,* with *pl.* APOCRYPHAS (-fȧz). [LL. *apocryphus* apocryphal, fr. Gr. *apokryphos* hidden, spurious, fr. *apokryptein* to hide, fr. *apo* from + *kryptein* to hide. Cf. CRYPT.] **a** [*not cap.*] Writings or statements of doubtful authorship or authority. **b** Specif.: In early use, books hidden from the public, either on the ground that they contained an esoteric wisdom or on the ground that they were harmful. The early Christian apocalypses, including the Book of Revelation, were called apocrypha, and the Gnostics applied the term to their secret apostolic tradition. But when the Church limited valid inspiration to the apostolic age, the books which had been regarded as supercanonical came to be extracanonical. The ***Old Testament Apocrypha*** in Roman Catholic use comprises books noncanonical and obscure in authorship, the term being applied to the Jewish books which Protestants commonly designate *pseudepigrapha.* In Protestant use, it comprises books in the Vulgate that were taken from the Septuagint but are not found in Hebrew. Most of these books are classed by Roman Catholics as deuterocanonical. By many Protestants they are recommended for use, but are not regarded as authoritative for doctrine. For a list of these books see OLD TESTAMENT. Although, strictly, 3 and 4 Maccabees, not being in the Vulgate, do not belong to the Apocrypha, they are included in some modern editions because of their being in the Septuagint. Sometimes 4 Maccabees is placed with the pseudepigrapha. The ***New Testament Apocrypha,*** which is the same for Catholic and Protestant churches, covers a wide range of literature including fragments of early gospels, as the Gospel according to the Hebrews, the Gospel according to the Egyptians, the Gospel of the Ebionites, of Philip, of Peter, and of Thomas, the Preaching of Peter, and the Oxyrhynchus Logia (see LOGIA); lost heretical books, as the Birth of Mary; the Agrapha (which see); infancy gospels, as the Protevangelium of James; passion gospels, as the Gospel of Nicodemus; acts of various apostles (the most important being the Acts of John, Paul, Peter, Andrew, and Thomas); epistles, as the Abgarus Letters; and apocalypses of the various apostles. In modern editions the Apostolic Fathers and the New Testament Apocrypha are mutually exclusive. In early usage, however, this was not the case, the Shepherd of Hermas, for example, being listed in the 2d century among the Apocrypha.

a·poc′ry·phal (ȧ·pŏk′rĭ·făl), *adj.* **1.** [*cap.*] Of, pertaining to, or of the nature of, the Apocrypha. **2.** Not canonical. Hence: Of doubtful authority or authenticity; mythic; fictitious; spurious; false; unreal.

Apocryphal Gospels are uncanonical Gospels; but all uncanonical Gospels are not necessarily *apocryphal* in the bad meaning which adheres to the word. A Gospel may be neither spurious nor heretical, though . . . uncanonical. *J. G. Tasker (Dict. of Bible).*

Syn. — Doubtful, unauthentic, spurious. See FABULOUS. — **a·poc′ry·phal·ly,** *adv.* — **a·poc′ry·phal·ness,** *n.*

a·poc′ry·phal, *n.* An apocryphal writing. *Obs.*

a·poc′ry·phal·ist (-ĭst), *n.* A defender of the canonicity of the Apocrypha.

a·poc′ry·phate (ȧ·pŏk′rĭ·fāt), *adj.* Of apocryphal or spurious origin or character. *Obs.*

A·poc′y·na′ce·ae (ȧ·pŏs′ĭ·nā′sē·ē), *n. pl.* [NL., fr. Gr. *apokynon* dogbane, fr. *apo* from + *kyōn, kynos,* dog.] *Bot.* A family of plants (order Gentianales), the dogbane family, of about 180 genera and 1,400 species. They are chiefly tropical herbs, shrubs, or trees having a milky juice, simple entire leaves, often showy flowers, and a fruit consisting of two follicles or drupes. The oleander (*Nerium*) and the periwinkle (*Vinca*) are cultivated species. Three genera yield rubber. — **a·poc′y·na′ceous** (-shŭs), *adj.*

ap′o·cyn′e·ous (ăp′ō·sĭn′ē·ŭs), *adj.* *Bot.* Apocynaceous.

A·poc′y·num (ȧ·pŏs′ĭ·nŭm), *n.* [NL. See APOCYNACEAE.] *Bot.* A genus of 20 species of chiefly American perennial herbs, type of the family Apocynaceae. They have opposite leaves and small white or pink flowers in corymbose cymes. *A. cannabinum,* the Indian hemp, yields a strong fiber.

ap′od (ăp′ŏd), *n.; pl.* -ODS (-ŏdz). Also **ap′ode** (ăp′ōd); *pl.* -ODES (-ōdz). [Gr. *apous, apodos,* footless, fr. *a-* not + *pous, podos,* foot.] One of certain animals that have no feet or footlike organs; esp., one of certain fabulous birds said to have no feet. The bird of paradise *Paradisea apoda* was formerly supposed to have no feet, as these were wanting in the specimens first obtained from the East Indies.

ap′od (ăp′ŏd), *adj.* Apodal.

Ap′o·da (ăp′ō·dȧ), *n. pl.* [NL.] *Zool.* Any of several different groups of animals which have been so named from their lacking limbs or feet; esp.: **a** An order of slender, wormlike holothurians which lack tube feet and radial ambulacral vessels. See HOLOTHURIOIDEA. **b** A group of fishes without pelvic fins; — equiv. to APODES, 1, in the broad sense. **c** The caecilians. **d** An order (or suborder) of parasitic segmented cirripeds. **e** Certain worms without appendages, as the leeches.

ap′o·dal (-dăl; -d'l), *adj.* **1.** Having no feet; footless. **2.** *Zool.* **a** Destitute of pelvic fins, as the eels. **b** Of or pertaining to the Apodes. **c** Of or pertaining to the Apoda.

ap′o·dan (-dăn), *adj.* Apodal. — *n.* An apodal animal.

ap′o·deip′non (ăp′ō·dīp′nŏn), n. [Gr., fr. *apo* from + *deipnon* supper.] *Eastern Ch.* The last part of the divine office. Cf. COMPLIN.

ap′o·deme (ăp′ō·dēm), *n.* Also **a·pod′e·ma** (ȧ·pŏd′ē·mȧ); *pl.* APODEMATA (ăp′ō·dĕm′ȧ·tȧ). [NL. *apodema,* fr. *apo-* + Gr. *demas* body.] *Zool.* One of the processes of the body wall which project inward, in the thoracic cavity of many arthropods; in insects, esp. any of certain such processes of the sides of the thorax. They support the internal organs and serve for the attachment of muscles. — **a·pod′e·mal** (ȧ·pŏd′ē·măl), **ap′o·dem′a·tal** (ăp′ō·dĕm′ȧ·tăl; -t'l), *adj.*

Ap′o·des (ăp′ō·dēz), *n. pl.* [NL. See APOD.] *Zool.* **1.** A group of soft-finned, physostomous fishes consisting of the eels, and often including the morays and, in old classifications, also many others having no pelvic fins. (See EEL.) It is now commonly treated as an order, but sometimes as including several orders, while formerly it was made a division of the Physostomi. Various characters indicate degeneration or low organization, such as the snakelike body, the shoulder girdle usually separate from the skull, and the absence of the mesocoracoid arch and of the pelvic and sometimes the pectoral fins. **2.** Any of several groups of animals; — equiv. nearly or exactly to APODA **a** or **c.**

a·pod′i·a (ȧ·pŏd′ĭ·ȧ), *n.* [NL.] Congenital absence of feet.

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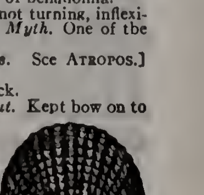
ap′l. Apple. *Ref. Sp.*
apl-. Var. of APLO-.
a·place′, *adv.* In place. *Obs.*
ap′la·net′ic. Var. of APLANATIC.
a·plom′. Aplomb. *Ref. Sp.*
a·pluck′, *adv.* [*a-* on + *pluck.*] With pluck or spirit. *Obs.*
A·plys′i·a (ȧ·plĭs′ĭ·ȧ), *n.* [NL., fr. Gr. *aplysias* a dirty sponge, fr. *aplytos* unwashed, fr. *a-* not + *plynein* to wash.] Syn. of TETHYS.
ap·noe′a, ap·noe′al, ap·noe′ic. Vars. of APNEA, etc.
a·poc′a·lipse. Apocalypse. *R. S.*
Apocalypse of Baruch. See PSEUDEPIGRAPHA.
a·poc′a·lyp′tism (ȧ·pŏk′ȧ·lĭp′tĭz′m), *n.* = APOCALYPTICISM, 2.
‖**a po′co** (ä pō′kō). [It., by little.] *Music.* Gradually.
A·poc′ri·fa, a·poc′ri·fal. Apocrypha, apocryphal. *Ref. Sp.*
A·poc′ri·ta (ȧ·pŏk′rĭ·tȧ), *n. pl.* [NL., fr. Gr. *apokritos* separated.] Syn. of CLISTOGASTRA.
a·poc′ry·phon (ȧ·pŏk′rĭ·fŏn), *n.,* sing. of APOCRYPHA.
ap′ode (ăp′ōd). Var. of APOD.
ap′o·deic′tic, etc. Vars. of APODICTIC, etc.
ap′o·deik′tic, etc. Vars. of APODICTIC, etc.
ap′o·deix′is (ăp′ō·dīk′sĭs), *n.* [Gr.] = APODIXIS.
A·pod′i·a (ȧ·pŏd′ĭ·ȧ), *n. pl.* [NL.] = APODA **a.**

B C D E F G H I J K L M

a·ton'al·ism (ā·tōn'ǎl·ĭz'm), *n.* *Music.* The quality of atonality as a principle of composition. — **-is'tic** (-ĭs'tĭk), *adj.*
a'to·nal'i·ty (ā'tō·năl'ĭ·tĭ), *n.* [See A- not.] *Music.* Absence of tonality; — the characteristic of a style of composition in which the musical material is organized without reference to key or tonal center, using impartially the tones of the 12-tone scale in a strongly dissonant manner.
at one. [ME. *at on, atone, atoon, attone.*] **1.** In concord or friendship; in agreement; as, to be, bring, make, or set, *at one*, that is, to be or bring in or to a state of agreement or reconciliation.
2. Of the same opinion; agreed; concurring; as, on these points only are we *at one.*
3. Together. *Obs.*
a·tone' (ȧ·tōn'), *v.*; A·TONED' (-tōnd'); A·TON'ING (-tōn'ĭng). [From *at one*, i.e., to be, or cause to be, at one. See AT ONE.] *Intransitive*: **1. a** *Obs.* To agree; to accord.
He and Aufidius can no more *atone*
Than violentest contrariety. *Shak.*
b To harmonize or produce a harmony.
2. To make reparation, compensation, expiation, or amends, for an offense or an offender.
The murderer fell, and blood *atoned* for blood. *Pope.*
—, *Transitive*: **1.** *Obs.* **a** To set at one; to reduce to concord; to reconcile, as enemies; to appease.
I would do much To *atone* them. *Shak.*
b To restore (one) to friendly relations; to conciliate.
2. To join in one; to form by uniting. *Obs.*
High built with pines that heaven and earth *atone.* *Chapman.*
3. To make satisfaction for; to expiate.
Or each *atone* his guilty love with life. *Pope.*
4. To make harmonious or congruous.
a·tone', *n.* **1.** Agreement; reconciliation. *Obs.*
2. Amends; expiation; atonement.
a·tone'ment (ȧ·tōn'mĕnt), *n.* **1.** (Literally, a setting *at one.*) The state of, or act of bringing into, concord; restoration of friendly relations; reconciliation. *Archaic.*
He desires to make *atonement*
Betwixt the Duke of Gloucester and your brothers. *Shak.*
2. Satisfactory reparation for an offense or injury; — with *for.*
3. *Theol.* The saving or redeeming work of Christ wrought through his incarnation, sufferings, and death; also, reconciliation between God and men, esp. as effected by Christ. Until the 11th century, soteriological thought centered in the theory of a ransom paid by Christ to the Devil, who had acquired dominion over men by their sins. St. Anselm (d. 1109) introduced the conception of ***substitutional***, or ***vicarious, atonement***, that Christ took on himself the punishment due to sin, and by his sacrifice offered adequate satisfaction to the offended infinite majesty of God. This view was, in substance, followed by the theologians of the later Middle Ages, and prevails in Catholic theology today. Early Protestant leaders accepted this view of the redemptive character of Christ's death, but division over the question of the application of the merits of the redemption to mankind led to wide and fundamental divergences of Protestant opinion. The theory of ***governmental atonement***, propounded by the Dutch statesman Grotius (d. 1645), was especially influential, particularly in New England. He taught that vindicative justice demands reparation for violated law in order that men may be deterred from sins. Since his time, soteriological theories have been numerous, and, not being mutually exclusive, defy strict classification. In general, there are three types: the ***substitutional theory***, with the corollaries that man is released from punishment either unqualifiedly or conditionally (in the latter case provided he be justified by faith); the ***legal theory***, that in Christ mankind was ransomed and justice satisfied; the ***moral***, or ***supernatural, theory***, that Christ's redemptive work was not a propitiation of God by suffering in place of sinful man or by offering his righteousness as a substitute for man's, but such a revealing to men of the holiness and love of God as to win them to repentance and faith, thus effecting reconciliation between men and God, and, potentially, between men and men.
4. [*cap.*] Day of Atonement.
5. *Christian Science.* The exemplification of man's unity with God, whereby man reflects divine Truth, Life, and Love. *Mary Baker Eddy.*
Syn. — See PROPITIATION.
at·one'ness (ăt·wŭn'nĕs; -nĭs; 119), *n.* Quality or state of being at one.
a·ton'er (ȧ·tōn'ẽr), *n.* One who atones.
a·to'ni·a (ȧ·tō'nĭ·ȧ), *n.* [NL.] *Med.* Atony.
a·ton'ic (ȧ·tŏn'ĭk), *adj.* [Gr. *atonos.* See ATONY.] **1.** *Med.* Characterized by atony; as, an *atonic* disease.
2. *Gram.* Unaccented; as, an *atonic* syllable.
3. *Phonet.* Without tone or vocality; voiceless; surd.
a·ton'ic, *n.* **1.** *Gram.* A word or syllable with no accent.
2. *Phonet.* An element of speech produced by the breath alone without voice; a voiceless, or surd, consonant, as *p, t*; a breathing.
at'o·nic'i·ty (ăt'ō·nĭs'ĭ·tĭ; ā'tō-), *n.* [*a-* not + *tonicity.*] *Med.* A condition in which tone or tension is lacking.
a·ton'ing·ly (ȧ·tōn'ĭng·lĭ), *adv.* By way of atoning; as if atoning.
at'o·ny (ăt'ō·nĭ), *n.* [ML. *atonia*, fr. Gr. *atonia* slackness, fr. *atonos* without tone, fr. *a-* not + *tonos* tone.] **1.** *Med.* Want of tone, or vital energy; weakness of the system or of any, esp. a contractile, organ.
2. *Phonet.* Weakness from lack of stress, or accent; as, the *atony* of an unaccented syllable.
a·top' (ȧ·tŏp'), *adj.* On or at the top.
a·top', *adv.* To the top.
a·top', *prep.* On top of.
At'o·phan (ăt'ō·făn), *n.* [*a-* not + *tophus* + 2d *-an.*] A trade-mark for a colorless, crystalline compound (2-phenylcinchoninic acid, $C_{16}H_{11}NO_2$), used to promote the excretion of uric acid, as in gout; hence [*sometimes not cap.*], the compound bearing this trade-mark.
a·top'ic (ā·tŏp'ĭk), *adj.* [*a-* not + Gr. *topos* place.] *Med.* **a** Displaced. **b** Pertaining to atopy.
at'o·pite (ăt'ō·pīt), *n.* [Gr. *atopos* unusual.] *Mineral.* A yellow or brown calcium antimonate, occurring in octahedrons. H., 5.5–6. Sp. gr., 5.03.
at'o·py (ăt'ō·pĭ), *n.* [See ATOPIC; -Y.] Allergy.
A'to·rai' (ä'tō·rä'ē), *n.* An Indian of an Arawakan tribe of the headwaters of the Essequibo River in British Guiana, recently absorbed by the Wapisianas.
A·tos'sa (ȧ·tŏs'ȧ), *n.* [NL., fr. Gr. *Atossa.*] **1.** The daughter of Cyrus, successively queen of Cambyses, Smerdis, and Darius Hystaspis, by the last of whom she had Xerxes. Herodotus speaks of her as a follower of Sappho.
2. Sarah, Duchess of Marlborough. *Pope.*
a·tour' (ȧ·tour'; -tōōr'), *prep.* & *adv.* [That is, *out over.*] Over. *Scot.*
A·tox'yl (ȧ·tŏk'sĭl; ā-), *n.* [*a-* not + *toxic* + *-yl.*] *Pharm.* A trade-mark for the monosodium salt of *p*-arsanilic acid, sometimes used hypodermically in the treatment of syphilis, sleeping sickness, and other diseases in which arsenic is indicated; hence [*sometimes not cap.*], the salt bearing this trade-mark. Its use frequently causes blindness.
at'ra·bi'lar (ăt'rȧ·bī'lẽr), **-bi·laire'** (-bĭ·lâr'), *adj.* [F. *atrabilaire.*] Atrabilarious. *Obs.*
at'ra·bi·lar'i·an (ăt'rȧ·bĭ·lâr'ĭ·ăn), *adj.* Atrabilarious. — *n.* A hypochondriac.
at'ra·bi·lar'i·ous (-ŭs), *adj.* [ML. *atrabilarius*, fr. L. *atra bilis* black bile.] Affected with melancholy; atrabilious; hypochondriac.
at'ra·bile (ăt'rȧ·bīl), *n.* [F., fr. L. *atra bilis*, trans. of Gr. *melancholia.*] Black bile; melancholy. *Obs.*
at'ra·bil'i·ar (-bĭl'ĭ·ẽr), *adj.* Melancholy; atrabilious.
at'ra·bil·iar'i·ous (-bĭl·yâr'ĭ·ŭs), *adj.* Atrabilious.
at'ra·bil'i·ar'y (-bĭl'ĭ·ĕr'ĭ; -ẽr·ĭ; -yẽr·ĭ), *adj.* **a** Of or pertaining to atrabile. **b** Atrabilious.
atrabiliary capsules. *Anat.* The suprarenal glands; — so called from the dark color of their medullary substance.
at'ra·bil'ious (ăt'rȧ·bĭl'yŭs), *adj.* Affected by black bile (see ATRABILE); melancholic or hypochondriac. — **at'ra·bil'ious·ness**, *n.*
a·tra'che·ate (ȧ·trā'kē·āt), *adj.* *Zool.* Without tracheae.
At'rac·tas'pis (ăt'răk·tăs'pĭs), *n.* [NL., fr. Gr. *atraktos* arrow + *aspis* serpent.] *Zool.* A genus of about 20 species of African burrowing vipers having the appearance of harmless snakes, but provided with long poison fangs.
A·trag'e·ne (ȧ·trăj'ē·nē), *n.* [NL., fr. Gr. *athragenē* a tree of which tinder was made.] *Bot.* **a** A small genus of perennial vines of the buttercup family (Ranunculaceae). They are allied to *Clematis*, but distinguished by having small spatulate petals. **b** [*not cap.*] A plant of this genus.
a·trail' (ȧ·trāl'), *adj.* Trailing.
at'ra·ment (ăt'rȧ·mĕnt), *n.* [L. *atramentum* ink, fr. *ater* black.] Ink, blacking, or a similar liquid or substance. *Obs.*
at'ra·men'tal (-mĕn'tăl), *adj.* Of or pertaining to ink. *R.*
at'ra·men'ta·ry (-mĕn'tȧ·rĭ), *adj.* Atramental. *Rare.*
at'ra·men'tous (-tŭs), *adj.* Black like ink; inky; inklike.
a'trau·mat'ic (ā'trô·măt'ĭk; ăt'rô-), *adj.* [See A- not.] *Surg.* Not likely to cause injury; specially prepared so as to minimize injurious effects; as, an *atraumatic* needle.
A·treb'a·tes (ȧ·trĕb'ȧ·tēz), *n. pl.* [L.] A Gallic tribe whose name is preserved in that of the former province of Artois, France. A division of the tribe was in Britain at the time of the Roman invasion.
at·re'de (ăt·rā'dĕ), *v. t.* [ME. *at* (AS. *æt*) out + *rede.*] To surpass in council. *Obs.*
A·tre'ma·ta (ȧ·trē'mȧ·tȧ; -trĕm'ȧ·tȧ), *n. pl.* [NL., fr. *a-* not + Gr. *trēma, trēmatos*, hole.] *Zool.* An order of inarticulate Brachiopoda having the peduncle emerging freely from between the valves. — **a·trem'a·tous** (ȧ·trĕm'ȧ·tŭs; -trē'mȧ·tŭs), *adj.*
a·trem'ble (ȧ·trĕm'b'l), *adj.* Trembling.
at'rep·sy (ăt'rĕp·sĭ), *n.* [See ATHREPSIA.] *Immunol.* Athrepsia. — **a·trep'tic** (ȧ·trĕp'tĭk), *adj.*
a·tre'si·a (ȧ·trē'zhĭ·ȧ; -zĭ·ȧ; -sĭ·ȧ), *n.* [NL., fr. Gr. *atrētos* not perforated.] *Med.* Absence or closure of a natural passage or channel of the body; imperforation. — **a·tre'sic** (-sĭk), **a·tret'ic** (-trĕt'ĭk), *adj.*
A'treus (ā'trōōs; ā'trē·ŭs), *n.* [L., fr. Gr. *Atreus.*] A son of Pelops (which see) and Hippodamia, and father of Menelaus and Agamemnon. Atreus and his brother Thyestes slew their half brother Chrysippus. They fled to Mycenae, where Atreus became king and married Aërope, daughter of Minos, king of Crete. Thyestes seduced Aërope, and sent Pleisthenes (Atreus's son) to kill Atreus; Atreus unwittingly slew Pleisthenes, and, feigning reconciliation with Thyestes, killed three of the sons of Thyestes and served them in a banquet to their father, whereupon Thyestes cursed the house of Atreus. Atreus was slain by Aegisthus, son of Thyestes. Cf. AGAMEMNON.
a'tri·al (ā'trĭ·ăl), *adj.* *Anat.* Of or pert. to an atrium.
a·trich'i·a (ȧ·trĭk'ĭ·ȧ), *n.* [NL., fr. Gr. *atrichos* hairless.] *Med.* Baldness, congenital or acquired.
at'ri·chous (ăt'rĭ·kŭs), *adj.* [See A- not; TRICHO-.] Having no flagellum.
a·trick'le (ȧ·trĭk''l), *adj.* Trickling.
A·tri'dae (ȧ·trī'dē), *n. pl.* [L., fr. Gr. *Atreidai.*] Agamemnon and Menelaus, sons of Atreus.
A·tri'de·an (-dē·ăn), *adj.* Of or pertaining to the Atridae.
at'ri·en'sis (ăt'rĭ·ĕn'sĭs), *n.*; *pl.* -SES (-sēz). [L., fr. *atrium.*] A house servant in charge of the atrium.
‖**a'tri·o** (ä'trē·ō), *n.* [It.] A hall, or atrium; specif., *Geol.*, the depression or valley between two cones of a volcano.
a'tri·o- (ā'trĭ·ō-). *Anat.* A combining form from *atrium*, denoting also *atrial and*, as in **a'tri·o·coe·lom'ic, a'tri·o·ven·tric'u·lar.**
a'tri·o·pore' (-pōr'; 181), *n.* [*atrio-* + *-pore.*] *Anat.* The posterior opening of the atrium of the amphioxus; atrial pore. — **a'tri·op'o·ral** (-ŏp'ō·răl; -ō·pō'răl), *adj.*
a'tri·o·ven·tric'u·lar bun'dle (-vĕn·trĭk'ū·lẽr). A slender bundle of primitive cardiac fibers passing from the **atrioventricular node** in the right atrium to the right and left ventricles by way of the septum. It conducts the wave of excitation from the right atrium to the ventricles and thus maintains the normal sequence of the heartbeat.
a·trip' (ȧ·trĭp'), *adj.* **1.** *Naut.* **a** Just hove clear of the ground; — said of the anchor. **b** Sheeted home, hoisted taut up, and ready for trimming; — said of sails. **c** Hoisted up and ready to be swayed across; — of light yards. **d** With the fid out and ready for lowering; — said of upper masts.
2. Tripping.
At'ri·plex (ăt'rĭ·plĕks), *n.* [L., the orach.] *Bot.* A large and widely distributed genus of herbs or subshrubs of the goosefoot family (Chenopodiaceae). They have small diclinous flowers and utricular fruit, enclosed in two bracts. *A. hortensis* is the garden orach. In the western U. S. they constitute part of the vegetation called *greasewood* and are often called *saltbushes.*
a'tri·um (ā'trĭ·ŭm; ä'-), *n.*; *pl.* ATRIA (-ȧ). [L.] **1.** *Rom. Antiq.* The principal room in a Roman house of early time, usually thought to have had a central opening in the roof (the *compluvium*) through which the rain fell into the *impluvium*, or tank, sunk in the floor.
2. *Arch.* **a** The open court leading to a basilica having a covered way on three, or on all four, sides, as in a cloister (of which the atrium is the prototype). **b** In some modern houses, a square hall from which other rooms open and which may yet be used as a sitting room.
3. *Anat.* Any of various cavities or chambers; esp.: **a** The main part of either auricle, as distinct from the auricular appendix. Also, the whole auricular chamber of the heart. See AURICLE, **1 b.** **b** The main part of the tympanic cavity.
4. *Zool.* A cavity, entrance, or passage; esp., an external chamber surrounding the branchial sac of tunicates and lancelets, and receiving the water from the gills, etc.
atrium of infection. *Med.* The point at which invading bacteria gain entrance.
at'ro- (ăt'rō-). A combining form, from Latin *ater*, black, denoting *black and*, as in **at'ro·ru'bent, at'ro·san·guin'e·ous.**
at'ro·cha (ăt'rō·kȧ), *n.* [NL., fr. *a-* not + Gr. *trochos* circle.] *Zool.* A form of chaetopod larva lacking the preoral circle of cilia and having most of the body uniformly ciliated. — **at'ro·chal** (-kăl), **at'ro·chous** (-kŭs), *adj.*
a·tro'cious (ȧ·trō'shŭs), *adj.* [L. *atrox, atrocis*, cruel, fierce.] **1.** Savagely brutal; outrageously cruel or wicked; as, *atrocious* guilt or deeds.
2. Very grievous or violent; terrible; as, *atrocious* distempers, risks. *Now Rare.*
3. Very bad; abominable; — said in hyperbole. *Colloq.*
Syn. — See FLAGRANT. **Ant.** — Mild, gentle.
— **a·tro'cious·ly**, *adv.* — **a·tro'cious·ness**, *n.*
a·troc'i·ty (ȧ·trŏs'ĭ·tĭ), *n.*; *pl.* -TIES (-tĭz). [F. *atrocité*, fr. L. *atrocitas.*] **1.** State or quality of being atrocious.
2. A savagely brutal or cruel deed, esp. one violating the code of humane restrictions morally imposed on belligerents.
3. Something very bad or abominable. *Colloq.*
4. A gross departure from correctness or good taste. *Colloq.*
at'ro·lac'tic (ăt'rō·lăk'tĭk), *adj.* [*atropine* + *lactic.*] *Chem.* Designating a crystalline acid, $C_9H_{10}O_3$, isomeric with tropic acid. It is a phenyl derivative of lactic acid.
At'ro·pa (ăt'rō·pȧ), *n.* [NL., fr. Gr. *Atropos.* See ATROPOS.] *Bot.* A genus of Eurasian and African herbs of the potato family (Solanaceae). *A. belladonna* is the belladonna. — **at'ro·pa'ceous** (-pā'shŭs), *adj.*
at'ro·pal (ăt'rō·păl), *adj.* *Bot.* Atropous.
a·tro'phi·a (ȧ·trō'fĭ·ȧ), *n.* [NL.] Atrophy.
-a·tro'phi·a (-ȧ·trō'fĭ·ȧ). *Med.* A New Latin suffix, from Greek *atrophia*, want of food, atrophy, forming nouns denoting *a (specified) type of atrophy*, as in mas*tatrophia*, splen*atrophia.*
a·tro'phi·at'ed (ȧ·trō'fĭ·āt'ĕd; -ĭd; 119), *adj.* Atrophied.
a·troph'ic (ȧ·trŏf'ĭk), *adj.* Relating to, or characterized by, atrophy.
at'ro·phied (ăt'rō·fĭd), *adj.* Affected with atrophy; shrunken; wasted; emaciated.
at'ro·pho·der'ma (ăt'rō·fō·dûr'mȧ), *n.* [NL. See ATROPHY; -DERMA.] *Med.* Atrophy of the skin.
at'ro·phy (ăt'rō·fĭ), *n.* [F. *atrophie*, fr. L. *atrophia*, fr. Gr. *atrophia*, fr. *a-* not + *trephein* to nourish.] **1.** A wasting away from want of nourishment; diminution in bulk or slow emaciation of the body or of any part, as in: ***brown atrophy***, atrophy, especially of the heart, with pigmentation of the affected part; ***pressure atrophy***, atrophy from compression and resultant loss of blood supply; ***senile atrophy***, the atrophy occurring with old age. The affection known as ***acute yellow atrophy*** of the liver is a rapid, profound degeneration of the liver with great reduction in size, and not truly an atrophy. ***Progressive muscular atrophy*** is a chronic disease characterized by continuous atrophy of the muscles, following degeneration of the anterior nerve roots of the spinal cord.
2. *Biol.* A stoppage of development of a part or organ (often followed by diminution in size or even complete disappearance) incidental to the normal development or life of an animal or plant. It is regarded by some as a result of disuse of the organ continued for many generations.
at'ro·phy (ăt'rō·fĭ), *v. i.* & *t.*; AT'RO·PHIED (-fĭd); AT'RO·PHY·ING (-fĭ·ĭng). To undergo, or cause to undergo, atrophy.
a·tro'pi·a (ȧ·trō'pĭ·ȧ), *n.* [NL.] Atropine.
a·trop'ic (ȧ·trŏp'ĭk), *adj.* *Chem.* Pert. to or designating a crystalline monoacid (α-phenyl-acrylic acid, $CH_2:C(C_6H_5)$-CO_2H) obtained by the decomposition of atropine and in other ways.
A·trop'i·dae (ȧ·trŏp'ĭ·dē), *n. pl.* [NL., fr. *Atropos*, type genus (see ATROPOS) + *-idae.*] *Zool.* A family of wingless insects of the order Corrodentia. See BOOK LOUSE.
at'ro·pine (ăt'rō·pēn; -pĭn; 277), *n.* Also **-pin.** [See ATROPA.] *Chem. & Pharm.* A poisonous, white, crystalline alkaloid, $C_{17}H_{23}NO_3$, extracted from the belladonna and other plants of the family Solanaceae; racemic (or *dl-*) hyoscyamine. It is used to relieve spasms, to diminish secretions, to relieve pain, and to dilate the pupil of the eye.
at'ro·pin·ize (-pĭn·īz), *v. t.* *Med.* To bring under the influence of atropine. — **at'ro·pin·i·za'tion** (-pĭn·ĭ·zā'shŭn), *n.*
at'ro·pism (-pĭz'm), *n.* *Med.* A morbid condition of the system produced by misuse of atropine or belladonna.
At'ro·pos (-pŏs), *n.* [Gr., fr. *atropos* not turning, inflexible, fr. *a-* not + *trepein* to turn.] *Gr. Myth.* One of the Fates (see FATE, *n.*, 5).
at'ro·pous (-pŭs), *adj.* [Gr. *atropos.* See ATROPOS.] *Bot.* Not inverted; orthotropous.
a'trous (ā'trŭs), *adj* [L. *ater.*] Black.
a·try' (ȧ·trī'), *adj.* [*a-* on + *try.*] *Naut.* Kept bow on to the sea by a balance of sails.
A·try'pa (ȧ·trī'pȧ), *n.* [NL., fr. *a-* not + Gr. *trypa* a hole.] *Paleontol.* An extinct genus of spire-bearing Brachiopoda, very common in Silurian and Devonian strata.



Atrypa (*A. aspera*). (⅔)

at'ta (ăt'ȧ), *n.* [Hind. *āṭā.*] Unsorted wheaten flour or meal. *India.*
at'ta (ăt'ȧ), *n.* [Hind. *ātā, atā.*] Any of several fruits or trees of the genus *Annona*, esp. the sweetsop (*A. squamosa*).
At·ta'ca·pan (ä·tä'kä·pän), *adj.* Pertaining to or designating a linguistic family, consisting, so far as is known, of three tribes now extinct, formerly inhabiting the shores of the Gulf of Mexico, in Louisiana and Texas.
‖**at·tac'ca** (ăt·tăk'kă), *v. imper.* [It., fr. *attaccare* to fasten, attack. See ATTACK.] *Music.* Attack at once; — a direction at the end of a movement to begin the next immediately.

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atone † AT ONE [ABLE.
a·tone'a·ble Var. of ATON-
at·once', *adv.* [See AT ONE.] At once. *Obs.*
atonic dyspepsia See DYSPEPSIA.
‖**à tort' et à tra·vers'** (ȧ tôr' ĕ ȧ trȧ'vâr'). [F.] At random; distractedly; at cross purposes.
a·tour', *n.* [OF.] Array. *Obs.*
‖**à toute' force'** (ȧ tōōt' fôrs'). [F.] Lit., with all force; by all means, at any cost, absolutely.
‖**à tout' ha'sard'** (ȧ tōō' ȧ'zȧr'). [F.] At all hazard(s).
‖**à tout' prix'** (prē'). [F.] At any price; at all costs.
‖**à tout' pro'pos'** (prō'pō'). [F.] On any and every occasion.
a·tox'ic (ā·tŏk'sĭk), *adj.* See A-, not. [See PONT EQUITEM, etc.
‖**a'tra cu'ra.** [L.] Black care.
‖**à tra'vers'** (ȧ trȧ'vâr'). [F.] Across, athwart; awry.
at·ren'ne, *v. t.* [ME. *at* out + *renne* to run.] To outrun. *Obs.*
at're·sy (ăt'rē·sĭ), *n.* Atresia.
a'tri·a, *n.*, *pl.* of ATRIUM.
at'ri·cho'sis (ăt'rĭ·kō'sĭs), *n.* *Med.* = ATRICHIA. [*Obs.*
a·troce', *adj.* [F.] Atrocious.
at'ro·fy. Atrophy. *Ref. Sp.*
a·tro'pa·mine (ȧ·trō'pȧ·mēn; -mĭn), *n.* Also -tn. *Chem.* = APOATROPINE.
atrophic cirrhosis. *Med.* See CIRRHOSIS.
at'ro·pin·ism (ăt'rō·pĭn·ĭz'm), *n.* = ATROPISM.
at'ro·scine (ăt'rō·sēn; -sĭn), *n.* Also -scin [*Atropa* + *hyoscine.*] *Chem.* See SCOPOLAMINE.
At'roth (ăt'rŏth; -rōth). *Bib.*
att (ăt). Var. of AT. See COIN, *Table.*
at'ta (ăt'ȧ), *n.* [Pali *attā.*] = ATMAN. [CUTTING ANT.
At'ta (ăt'ȧ), *n.* See LEAF-
at'ta·bal. Var. of ATABAL.

Ant. — Unfairness, partiality, prejudice. See INJUSTICE.
☞ COMBINATIONS and PHRASES are:

justice box	justice-loving, *adj.*	justice seat
justice-dealing, *adj.*	justice-proof	justice-slighting, *adj.*

— to do justice to. To treat with fairness or according to merit. **— to do (one) justice.** To pledge in drinking. *Obs.* **— to do oneself justice.** To acquit oneself in a way worthy of one's powers.

jus'tice (jŭs'tĭs), *v. t.;* JUS'TICED (-tĭst); JUS'TIC·ING (-tĭs-ĭng). [OF. *justicier, justisier.*] To administer justice to or in respect of. *Obs.* — *v. i.* To administer justice. *Obs.*

Justice Clerk, or, *in full,* **Lord Justice Clerk.** *Scots Law.* Vice-president of the High Court of Justiciary, and Lord President of the Outer House of the Court of Session.

justice eyre. = EYRE, *n.,* 2.

Justice General, or, *in full,* **Lord Justice General.** *Scots Law.* The president of the High Court of Justiciary. His office is now (by 1 Wm. IV. c. 69 §§ 18, 19) joined with that of the Lord President of the Court of Sessions. — **Jus'tice–Gen'er·al·ship',** *n.*

jus'tice·hood (jŭs'tĭs·ho͝od), *n.* Justiceship. *Rare.*

justice of the peace. *Law.* A subordinate magistrate appointed (first in 1327) for the conservation of the peace in a specified district, with, esp. formerly in England, other incidental administrative and financial powers specified in his commission. In Great Britain and the United States his principal duties are to administer summary justice in minor cases, to commit for trial in a superior court on cause shown, and, in Great Britain, to grant licenses and act, if a county justice, as judge at quarter sessions.

jus'tic·er (jŭs'tĭs·ẽr), *n.* [OF. *justicier.*] One who maintains or administers justice; a judge. *Archaic.*

jus'tic·es in eyre' (jŭs'tĭs·ĕz; -ĭz ĭn âr'; 119). **a** See EYRE. **b** [*caps.*] See EYRE OF THE FOREST.

jus'tic·es in i·tin'e·re (ĭn ĭ·tĭn'ẽ·rē). See EYRE.

Justices of the Forest. See EYRE OF THE FOREST.

justice's warrant. A warrant issued by a single magistrate. Cf. BENCH WARRANT.

jus'tice·weed' (jŭs'tĭs·wēd'), *n.* A slender white-flowered herb (*Eupatorium leucolepis*) of the eastern U. S.

Jus·ti'ci·a (jŭs·tĭsh'ĭ·ȧ), *n.* [NL., after James *Justice,* Scot. botanist.] *Bot.* A genus of tropical herbs or shrubs of the acanthus family with small varicolored flowers.

jus·ti'ci·a·ble (jŭs·tĭsh'ĭ·ȧ·b'l), *adj.* [OF.] Liable to trial in a court of justice; as, a *justiciable* dispute; judicable. — *n.* A person under (another's) jurisdiction.

jus·ti'cial (jŭs·tĭsh'ăl), *adj.* [ML. *justitialis.*] Of or pertaining to justice. *Rare.*

jus·ti'ci·ar (jŭs·tĭsh'ĭ·ẽr), *n.* [ML. *justitiarius.* See JUSTICE.] **1.** *Eng. Hist.* The chief political and judicial officer of the Norman and later kings until the 13th century. Called in full *capital,* or *chief, justiciar.*
2. *Eng. Hist.* A high royal judicial officer, esp. a justice of one of the superior courts. *Obs. exc. Hist.*
3. *Scot. Hist.* Under early kings, either of two chief judges, with jurisdiction north and south, respectively, of Forth.
4. One who maintains that man can attain to righteousness.

jus·ti'ci·ar·ship', *n.* See -SHIP.

jus·ti'ci·ar'y (-ẽr'ĭ; -ẽr·ĭ), *n.* Jurisdiction of a justiciar. *Scot.*

jus·ti'ci·es (jŭs·tĭsh'ĭ·ēz), *n.* [ML., bring to trial, 2d pers. sing. pres. subj. of *justiciare, -tiare.* See JUSTICE, *v.*] *Law.* A former writ of debt addressed to the sheriff, in cases not involving over 40 shillings.

jus'ti·fi'a·ble (jŭs'tĭ·fī'ȧ·b'l), *adj.* [F. See JUSTIFY.] **1.** Justiciable. *Obs.*
2. Capable of being justified, or shown to be just. — **jus'ti·fi'a·bil'i·ty** (jŭs'tĭ·fī'ȧ·bĭl'ĭ·tĭ), *n.* — **jus'ti·fi'a·ble·ness,** *n.* — **jus'ti·fi'a·bly,** *adv.*

jus'ti·fi·ca'tion (-fĭ·kā'shŭn), *n.* [OF. or L.; OF. *justification,* fr. LL. *justificatio.* See JUSTIFY.] **1.** Administration or execution of justice; also, an ordinance. *Obs.*
2. Act of justifying, or state of being justified; also, that which justifies; defense; vindication; as, arguments in *justification* of the prisoner's conduct.
3. Act of adjusting or arranging.
4. *Law.* **a** The showing in court of a sufficient lawful reason why a party charged or accused did that for which he is called to answer; also, that which constitutes such a reason. **b** The justifying of sureties, as on a bail bond.
5. *Print.* Adjustment, as of type, by spacing it so as to make it exactly fill a line, or of a cut so as to hold it in the right place; also, the leads, quads, etc., used in justifying.
6. *Theol.* The act, process, or state of being justified (see JUSTIFY, 3) by God; also, the terms under which one is so justified. The controversy over the nature of justification during and following the Reformation reveals the original theological difference between Protestantism and Catholicism. Specif.: **a** *Prot. Theol.* More fully, **justification by faith.** (1) The doctrine characteristic of historic Protestantism, and ascribed by its adherents to Paul, that man can be justified only when by faith he accepts the righteousness of Christ, which God imputes to him. To the Roman Catholic objection that justification is by faith and good works, it was replied that man is justified "by faith alone, but not by the faith that is alone," that is, not followed by good works. (2) As interpreted by many liberal Protestants, God's approval of the attitude of those who respond affirmatively to the moral and religious appeal of Christ, as being essentially right and containing the promise and potency of the eventual development of a fully righteous character. **b** *R. C. Theol.* More fully, **justification by faith and good works.** The process by which a sinner is changed from unrighteousness to holiness in the sight of God through faith that is active in charity and good works; also, a state in which a soul is just and pleasing to God owing to the interior transformation wrought by sanctifying grace.

jus'ti·fi·ca'tive (jŭs'tĭ·fĭ·kā'tĭv), *adj.* [Cf. F. *justificatif.*] Having power to justify; justificatory.

jus'ti·fi·ca'tor (jŭs'tĭ·fĭ·kā'tẽr), *n.* [ML.] A justifier.

jus'ti·fi·ca·to·ry (jŭs'tĭ·fĭ·kā'tō·rĭ; jŭs·tĭf'ĭ·kȧ-), *adj.* Tending or serving to justify; vindicatory.

jus'ti·fi'er (jŭs'tĭ·fī'ẽr), *n.* One who or that which justifies; specif.: **a** One who vindicates or absolves. **b** In enamel work, a graver for trimming the walls.

jus'ti·fy (jŭs'tĭ·fī), *v.;* -FIED (-fīd); -FY'ING (-fī'ĭng). [OF. *justifier,* fr. LL. *justificare,* fr. *justus* just + *-ficare* (in comp.) to make. See JUST, *adj.;* -FY.] *Transitive:* **1.** To administer justice to; to execute justice upon. *Obs.*
2. To prove or show to be just; to vindicate; to maintain or defend as conformable to law, right, justice, or duty.

> I may assert eternal providence,
> And *justify* the ways of God to men. *Milton.*

3. To pronounce free from guilt or blame; to absolve.
4. To adjust or arrange exactly.
5. To confirm, or to maintain or acknowledge as true, lawful, or legitimate. *Obs.*
6. To trim or regulate the walls of enamel work.
7. *Law.* **a** To show to have had a sufficient legal reason for an act made the subject of a charge or accusation. **b** To qualify (oneself) as a surety by taking oath to the ownership of sufficient property.

> The production of bail in court, who there *justify* themselves against the exception of the plaintiff. *Bouvier's Law Dict.*

8. *Print., etc.* To space (a line of type) so that it is exactly the intended length; also, in type founding, to make level and square the body of (a strike).
9. *Theol.* To judge, regard, or treat (one) as righteous, holy, worthy of salvation, or as freed from the future penalty of sin; — now used chiefly in the passive voice, but always implying that God is the agent. See JUSTIFICATION, 6.
—, *Intransitive:* **1.** *Law.* **a** To show a sufficient lawful reason for an act done. **b** To qualify as bail or surety by taking oath to the ownership of sufficient property.
2. *Print.* To form an even surface or true line with something else; to fit exactly; — said of type.
3. *Theol.* To accept and receive those as just or righteous who respond to Christ in wholehearted faith, or to make them righteous by infusing grace into them.

Syn. — Defend, maintain; sanction, authorize, support. — JUSTIFY, WARRANT. To JUSTIFY is to vindicate or to show sufficient grounds for; to WARRANT is to justify, esp. by sanction or authority; as, "It will be a good book, and one which, sooner or later, shall *justify* me in having chosen literature for my life pursuit" (*Southey*); "So bred, no wonder if I took the bent that seemed even *warranted* by thy consent" (*Dryden*). See VINDICATE; cf. ENSURE.

jus'ti·fy'ing (jŭs'tĭ·fī'ĭng), *pres. part. & verbal n.* of JUSTIFY. — **jus'ti·fy'ing·ly,** *adv.*

justifying space. See 1st SPACE, 12.

justifying velocity. *Meteorol.* A wind velocity so high as to be dangerous to navigation and to justify the display of wind signals. This velocity, as determined by the United States Weather Bureau, varies according to the temperature and the direction of the wind. Usually it must exceed twenty-five miles an hour.

Jus'tin (jŭs'tĭn), *n.* [L. *Justinus.*] Literally, just; — masculine proper name. L. *Justinus* (jŭs·tī'nŭs); F. *Justin* (zhüs'tăN'); It. *Giustino* (jo͞os·tē'nō); Sp. *Justino* (ho͞os·tē'nō; 162); G. *Justin* (yo͞os'tēn).

Jus·ti'na (jŭs·tī'nȧ), **Jus·tine'** (jŭs·tēn'), *n.* [L. See JUSTIN.] Feminine proper name. L. id.; F. *Justine* (zhüs'tēn'); It. *Giustina* (jo͞os·tē'nä); Sp. *Justina* (ho͞os·tē'nä; 162); G. *Justine* (yo͞os·tē'nĕ).

Jus·tin'i·a'ni·an (jŭs·tĭn'ĭ·ā'nĭ·ăn), *adj.* Of or pert. to Justinian (483–565), the Byzantine emperor under whom much of the Western Empire was reconquered, and the laws codified in what is called the **Jus·tin'i·an** (jŭs·tĭn'ĭ·ăn), *or, rarely,* **Justinianian, Code.** See CORPUS JURIS CIVILIS.

Jus·tin'i·an·ist (jŭs·tĭn'ĭ·ăn·ĭst; 159), *n.* One versed in the Institutes of Justinian; a student of civil law.

just intonation. *Music.* **a** The precisely correct sounding of notes or intervals; true pitch. **b** The giving all tones at the mathematically exact intervals of their vibration ratios; — opposed to *tempered intonation.* See TEMPERAMENT.

‖**jus·ti'ti·a** (jŭs·tĭsh'ĭ·ȧ), *n.* [L.] **a** Justice. **b** [*cap.*] The goddess of justice. See JUSTICE, 1.

just'ly (jŭst'lĭ), *adv.* [From JUST, *adj.*] In a just manner; in conformity to law, justice, or propriety; fairly.

just'ment (jŭst'mĕnt). Var. of AGISTMENT. *Local, Eng.*

just'ments (-mĕnts), *n. pl.* [See JUST, *adj.*] Due ceremonies, as for the dead. *Obs.*

just'ness, *n.* Quality or state of being just; conformity to truth, propriety, accuracy, or the like; justice.
Syn. — Accuracy, exactness, correctness, fitness.
Ant. — Unjustness, unfairness, wrongness.

just'–no'tice·a·ble dif'fer·ence. *Psychophysics.* The minimum difference perceptible in any part of a series of sensory qualities, ordinarily determined by reference to the corresponding stimulus conditions.

just now. **a** The least possible time since; a moment ago. **b** *Dial.* Shortly; ere long.

jus'to (jŭs'tō; *Pg.* zho͞os'to͞o), *n.* A Portuguese gold coin of John II (1481–95), inscribed "Et justus ut palma florebit."

Just So Stories. Children's stories, by Rudyard Kipling (1902), explaining aspects of animal forms and habits.

just the same. Nevertheless. *Colloq., U. S.*

Jus'tus (jŭs'tŭs), *n.* [L.] Literally, just; — masculine proper name. L. id.; F. *Juste* (zhüst); It. *Giusto* (jo͞os'tō); Sp. *Justo* (ho͞os'tō; 162); G. *Justus* (yo͞os'to͞os), *Just* (yo͞ost).

‖**jus u·ten'di** (jŭs ū·tĕn'dī). [L.] *Rom. & Civil Law.* See USE, *n.*

jut (jŭt), *v. i.;* JUT'TED; JUT'TING. [Corrupt. of JET, *v.*] To shoot out or forward; to project beyond the main body.

> In *jutting* rock and curved shore. *Wordsworth.*

— *v. t.* To cause to jut.

jut, *n.* That which projects or juts; a projection.

jut, *v. t. & i.* [Imitative.] To jolt; to knock (against something); shove. — *n.* Act or instance of jutting. *Both Obs. exc. Dial.*

jute (jo͞ot; 242; 277), *n.* [Beng. *jŭt,* fr. Skr. *jūṭa* matted hair; cf. Skr. *jaṭā* matted hair, fibrous root.] **a** The glossy fiber of either of two East Indian tiliaceous plants (*Corchorus olitorius* and *C. capsularis*). Though tenacious, it is injured by moisture, and hence is used chiefly for sacking, burlap, and the cheaper varieties of twine; it is also made into wrapping paper, and is sometimes mixed with wool or silk in fabrics. **b** The plant producing this fiber; also, any other species of *Corchorus.* See CORCHORUS.

jute, *adj.* Made in whole or in part of jute; as, *jute* paper.

Jute, *n.* A member of one of the Low German tribes of Jutland, some of whom settled in Kent, England, in the 5th century. — **Jut'ish** (jo͞ot'ĭsh), *adj.*

jute board. A strong, solid board made of sulphate pulp.

jute butts. Fiber from the thick woody butt of the jute stalk, used for cotton bagging, etc.

jute crusher. = JUTE OPENER.

jute opener. A machine of coarsely corrugated rollers between which jute from the bale is fed in (on a sheet) and delivered (on a lattice) soft, pliable, and easily handled.

jute tier. See TIER.

Jut'ic (jo͞ot'ĭk), *n.* The language of the Jutes.

jut'ka (jŭt'kȧ), *n.* [Hind. *jhaṭkā* a jerk, shake.] In Madras, a kind of two-wheeled carriage with a top. *India.*

Jut'land·er (jŭt'lăn·dẽr), *n.* A native or inhabitant of Jutland.

Jut'land·ish (-dĭsh), *adj.* Like Jutland or Jutlanders.

jut'ting (jŭt'ĭng), *pres. part. & verbal n.* of JUT. Specif.: *adj.* Projecting; protruding. — **jut'ting·ly,** *adv.*

jut'ty (-ĭ), *n.;* *pl.* -TIES (-ĭz). [See JETTY, JUT, JET.] A projection in a building; also, a pier or mole; a jetty. *Shak.*

jut'ty, *v. t. & i.* To project beyond; to jut. *Obs.*

jut'ty, *v. i.* To agree. *Rare.*

Ju·tur'na (jo͞o·tûr'nȧ), *n.* [L.] *Rom. Myth.* A water nymph, of Lanuvian origin, taken by the Romans as the presiding spirit of a spring near the temple of Vesta.

Ju·va'vi·an (jo͞o·vā'vĭ·ăn), *adj.* [From ML. *Juvavia, Juvavum,* Salzburg.] *Geol.* Designating or pertaining to the next to the highest stage of the Trias of the eastern Alps. — **Ju·va'vi·an,** *n.*

ju've·nal (jo͞o'vē·năl; -n'l; 242), *adj.* [L. *juvenalis* youthful, juvenile, fr. *juvenis* young.] Young; juvenile. *Rare.*

ju've·nal, *n.* A youth. *Obs.*

Ju've·na'li·an (-nā'lĭ·ăn; 159), *adj.* Of, pertaining to, or characteristic of, Juvenal (60?–140? A.D.), the Roman satiric poet, whose style is marked by verve and harsh realism.

juvenal plumage. *Zool.* The plumage of a bird immediately succeeding the natal down. *Dwight.*

ju've·nes'cent (jo͞o'vē·nĕs'ĕnt; -'nt), *adj.* [L. *juvenescens,* pres. part. of *juvenescere* to grow young again, fr. *juvenis* young.] Growing young. — **ju've·nes'cence** (-ĕns; -'ns), *n.*

ju've·nile (jo͞o'vē·nĭl; -nīl; 277: -nīl *usual in British usage, and not uncommon in America, esp. for the noun; cf.* -ILE), *adj.* [L. *juvenilis,* fr. *juvenis* young. See YOUNG; cf. JUNIOR.] **1.** Young; youthful; immature or undeveloped; as, a *juvenile* appearance; a *juvenile* stage.
2. Of, pertaining to, characteristic of, or suitable for, youth; as, *juvenile* sports; a *juvenile* book.
3. Being or remaining in a youthful stage of development, as certain plants in which the leaves are assumed to be similar to ancestral adult forms. A juvenile state is permanent in occasional trees of the red cedar (*Juniperus virginiana*), and some other evergreens.
Syn. — See YOUTHFUL. **Ant.** — Old, aged, senile.

ju've·nile, *n.* **1.** A young person or youth.
2. *Theat.* An actor of youthful parts.
3. A book for children.

juvenile court. *Law.* A court having special jurisdiction over delinquent and dependent children, usually up to the age of 18. The distinguishing practices are private hearings for offenders, personal relations with the judge, periods of probation, the prohibition of imprisonment with adults, and jurisdiction over parents contributory to delinquency. Sometimes called also *children's court.*

juvenile delinquent. A delinquent under an age fixed by law, usually 16 or 18 years. *Colloq.*

juvenile lead. *Theat.* A part for a juvenile as leading man; one acting such a part.

‖**ju've·nil'i·a** (jo͞o'vē·nĭl'ĭ·ȧ), *n. pl.* [L.] Youthful compositions; immature work, esp. literary or artistic.

ju've·nil'i·fy (jo͞o'vē·nĭl'ĭ·fī), *v. t.* To make youthful.

ju've·nil·ism (jo͞o'vē·nĭl·ĭz'm), *n.* [See -ISM.] *Med.* Persistence of certain juvenile characteristics in adult life.

ju've·nil'i·ty (-nĭl'ĭ·tĭ), *n.;* *pl.* -TIES (-tĭz). [L. *juvenilitas.*] **1.** Youthfulness or youthful manner or character.
2. Juveniles as a body; *pl.,* juvenile traits, acts, etc.

Ju·ven'tas (jo͞o·vĕn'tăs), *n.* [L.] *Rom. Relig.* Youth personified as a goddess, identified with the Greek Hebe.

ju'ven·tude (jo͞o'vĕn·tūd), *n.* [L. *juventus, juventutis,* influenced by L. nouns in *-tudo, -tudinis.*] Youth. *Rare.*

ju'vi·a (jo͞o'vĭ·ȧ), *n.* The Brazil nut.

ju'vite (yo͞o'vīt), *n.* [From *Juvet,* Norway.] *Petrog.* A leucocratic nephelite-syenite rich in potash.

‖**jux'ta** (jŭks'tȧ). [L. See JOUST, *v. i.*] Near; near by.

jux'ta- (jŭks'tȧ-). A combining form, from Latin *juxta,* by the side of, near, denoting *situated near,* as in **jux'ta-am'pul·lar, jux'ta-ar·tic'u·lar, jux'ta·lit'to·ral, jux'ta-ma·rine', jux'ta·py·lor'ic, jux'ta·spi'nal, jux'ta·ter·res'tri·al, jux'ta·trop'i·cal.** See AMPULLAR, etc.

jux'ta·pose' (jŭks'tȧ·pōz'), *v. t.;* -POSED' (-pōzd'); -POS'ING (-pōz'ĭng). [*juxta-* + *pose,* v.] To place side by side, or in juxtaposition; — often followed by *with.*

jux'ta·pos'it (jŭks'tȧ·pŏz'ĭt), *v. t.* [L. *juxta* near + *positus,* past part. of *ponere* to put.] To juxtapose.

jux'ta·po·si'tion (-pō·zĭsh'ŭn), *n.* [F., fr. L. *juxta* near + F. *position.* See JOUST, *v. i.;* POSITION.] A placing or being placed side by side. — **jux'ta·po·si'tion·al** (-ăl; -'l), *adj.* — **jux'ta·pos'i·tive** (-pŏz'ĭ·tĭv), *adj.*
Syn. — Contact, contiguity nearness, proximity.

jynx (jĭngks), *n.* [NL., pl. *jynges,* fr. L. *iynx* the wryneck (used in charms). See JYNX; cf. JINX.] **1.** The wryneck. **2.** A charm; a spell.

Jynx (jĭngks), *n.* [L. *iynx* the wryneck, fr. Gr. *iynx.*] *Zool.* The genus of woodpeckers consisting of the wrynecks. It constitutes a subfamily, **Jyn·gi'nae** (jĭn·jī'nē). — **jyn'gine** (jĭn'jĭn; -jīn), *adj.*

‖**J'y suis', j'y reste'** (zhē swē', zhē rĕst'). [F.] I am here; here I remain; — attributed to MacMahon in 1855 when advised to abandon the Malakoff.

K

L

M

jus'tice·less, *adj.* See -LESS.
jus'tice·like', *adj.* See -LIKE.
jus'tice·ship, *n.* See -SHIP.
jus·ti'ci·a·bil'i·ty (jŭs·tĭsh'ĭ·ȧ·bĭl'ĭ·tĭ), *n.* See -ITY.
jus·ti'ci·ar'y (jŭs·tĭsh'ĭ·ẽr'ĭ; -ẽr·ĭ), *n.* = JUSTICIAR.
jus·ti'ci·ar'y·ship, *n.,* = JUSTICIARSHIP.
jus'ti·co (jŭs'tĭ·kō), **jus'ti·coat'** (-kōt'). Vars. of JUSTAUCORPS.
jus'ti·fi'a·bl. Justifiable. *Ref. Sp.*
justifiable homicide. See HOMICIDE, 1.
just'ing. Var. of *jousting, pres. part.* of JOUST, *v.*
‖**jus'ti·sis er·raunts'** (jo͞os'tĭ·sĭs ĕr·rounts'). [AF.] See EYRE.
jus'tist. Justiced. *Ref. Sp.*
‖**jus'ti'ti·ae i·ti'ne·ran'tes** (jŭs·tĭsh'ĭ·ē ĭ·tĭn'ẽr·ăn'tēz). [ML.] See EYRE.
‖**jus·ti'ti·a om'ni·bus** (ŏm'nĭ·bŭs). [L.] Justice to all; — motto of District of Columbia.
jus'tle. Var. of JOSTLE.
‖**jus'tum ma'tri·mo'ni·um** (măt'rĭ·mō'nĭ·ŭm). [L.] See CONNUBIUM, 1 a.
ju·ti'a (ho͞o·tē'ä; 162). Var. of HUTIA.
ju·ti'a con'ga (ho͞o·tē'ä kŏng'gä). Var. of HUTIA CONGA.
Jut'land (jŭt'lănd), *n.* See BATTLE, *Table.*
Jut'tah (jŭt'ȧ). *Bib.*
jut'ting·ly, *adv.* of *jutting, pres. part.*
ju've·nate (jo͞o'vē·nāt), *n.* [L. *juvenis* young man + *-ate.*] *R. C. Ch.* = JUNIORATE.
ju've·nil. Juvenile. *Ref. Sp.*
ju've·nile·ly, *adv.* of JUVENILE.
ju've·nile·ness, *n.* See -NESS.
ju've·nil·ize, *v. t.* = JUVENILIFY.
ju'vent, *n.* [OF.] Youth. *Obs.*
Ju·ver'na (jo͞o·vûr'nȧ), *n.* = HIBERNIA.
ju·war'ree. Var. of JOWARI.
juwise. Var. of JUISE. *Obs.*
Ju'yas (zho͞o'yäsh), *n. pl.* See CAYAPO. [*Table.*]
Ju'za (jo͞o'zȧ), *n.* See STAR,
ju·zail'. Var. of JEZAIL.

2. A violin; hence, stringed instruments collectively.
3. A heavy linen or cotton fabric woven with wide spaces between threads, used esp. for stiffening in clothes.
4. An almost prostrate herb (*Tephrosia virginiana*) of eastern North America, with yellowish-purple flowers; also, its strong wiry root. Called also *goat's-rue* and *wild sweet pea*.

Cath'a (kăth'*á*), *n.* [NL. See KAT.] *Bot.* A genus of African evergreen shrubs of the staff-tree family (Celastraceae). *C. edulis*, the kat, is the only species. See KAT.

cat hair. = CAT'S HAIR.

cat ham. A thin flat thigh. See CAT-HAMMED.

cat'–hammed' (kăt'hămd'), *adj.* Thin and flat from side to side of the thigh, with an incurving of the rear line; — said of horses and cattle, esp. dairy cattle.

Cath'a·ri (kăth'*á*·rī), *n. pl.* [ML., fr. Gr. *katharos* pure.] *Eccl. Hist.* Literally, the pure; hence, the members of any of various sects which aimed at giving a practical protest to real or fancied corruption. Specif., esp. a widely distributed sect whose interpretation of Christianity from a dualistic Manichaean point of view put them in opposition to the Church and the existing social order. There were among them two classes: the *perfecti* (perfected), who had received the Consolamentum (that is, spiritual baptism), who were guaranteed salvation, and who might carry out the "endura," a hunger strike against evil, leading usually to death; and the *credentes* (believers), who were of a lower order and might after death undergo reincarnation. They went by many names, *Bulgari* from their presumed place of origin, *Neo-Manichaeans* from their tenets, *Tesserants* because so many of them were weavers, and *Albanenses, Concorrezanes, Albigenses, Patarines* (conjecturally) from the cities or localities in which they dwelt. In all there were about seventy-two sects. — **Cath'a·rism** (-rĭz'm), *n.* — **Cath'a·rist** (-rĭst), *n.* — **Cath'a·ris'tic** (-rĭs'tĭk), *adj.*

cath'a·rize (-rīz), *v. t.;* CATH'A·RIZED (-rīzd); CATH'A·RIZ'ING (-rīz'ĭng). [Gr. *katharizein* to purify.] To make clean; to purify; specif., to make chemically clean. — **cath'a·ri·za'tion** (-rĭ·zā'shŭn; -rī·zā'shŭn), *n.*

cat'harp'ing (kăt'här'pĭng; -pĭn), *or, more commonly,* **cat'harp'in**, *n. Naut.* One of the short ropes or iron cramps used to brace in the shrouds toward the masts so as to give freer sweep to the yards.

ca·thar'sis (k*á*·thär'sĭs), *n.* [NL., fr. Gr. *katharsis*. See CATHARTIC.] 1. *Med.* Purgation, specif. of the bowels.
2. *Aesthetics.* Purification or purgation of the emotions by art; — a variously interpreted term used by Aristotle in his description of the effect of tragedy as "(through pity and fear effecting a *catharsis* of these emotions." In English usage it has acquired two leading senses: **a** Elimination or moderation of emotional disturbances, esp. those caused by pity or fear, through stirring up, and providing an outlet for, these feelings by means of artistic (esp. tragic) representation; hence, a mood of emotional release and intellectual serenity induced by art. **b** Purification of the emotions, esp. pity and fear, by cleansing them of that which is selfish, morbid, irrational, etc., through inducing imaginative participation in the sufferings of others artistically presented, esp. in tragedy; hence, a mood in which the feelings excited are refined, exalted, and universalized by being given an impersonal or ideal direction by art.
3. Salutary discipline, esp. of mind or soul, through actual or vicarious experience; mental or spiritual readjustment and clarification through an ordeal.
4. *Psychoanalysis.* Elimination of a complex by bringing it to consciousness and affording it complete expression.

Ca·thar'tes (k*á*·thär'tēz), *n.* [NL., fr. Gr. *kathartēs* a cleanser.] *Zool.* The genus consisting of the turkey buzzard, typifying the family Cathartidae.

ca·thar'tic (k*á*·thär'tĭk), **ca·thar'ti·cal** (-tĭ·k*ă*l), *adj.* [Gr. *kathartikos*, fr. *kathairein* to cleanse, fr. *katharos* pure.] Of or pert. to catharsis; having the effect of a catharsis; purgative; cleansing; specif.: **a** Cleansing the bowels; promoting evacuations by stool; purgative. **b** Ceremonially purifying. — **ca·thar'ti·cal·ly**, *adv.* — **ca·thar'ti·cal·ness**, *n.*

ca·thar'tic (k*á*·thär'tĭk), *n.* [Gr. *kathartikē*.] A cathartic medicine; a purgative (which see); often, a mild purgative.

cathartic bark. The bark of the yellow oleander (*Thevetia nereifolia*).

Ca·thar'ti·dae (k*á*·thär'tĭ·dē), *n. pl.* [NL. See CATHARTES.] *Zool.* A family of birds of prey, entirely confined to America; the American vultures. They differ from the true vultures in many points of structure, as in having pervious nostrils, no caeca, and no syringeal muscles, but resemble them in appearance and habits, feeding chiefly on carrion. The family contains the condors, turkey buzzard, king vulture, etc., and is usually regarded as constituting a suborder, **Ca·thar'tae** (-tē) of the Falconiformes.

Ca·thar'to·li'num (k*á*·thär'tō·lī'nŭm), *n.* [NL. See CATHARTIC; LINUM.] *Bot.* A large widely distributed genus of low herbs of the flax family (Linaceae).

cat haw. The fruit of the hawthorn. *Dial. Eng.*

Ca·thay' (k*ă*·thā'; 3), *n.* [ML. *Cataya*, of Tatar origin, fr. the *Khitan*. See KHITAN.] 1. China; — so called formerly in Western Europe, esp. in the Middle Ages.
2. French yellow.

Ca·thay'an (-*ă*n), *n.* One of a Tatar race in northern China, in the 10th and 11th centuries; a Khitan. Cf. CATAIAN. — **Ca·thay'an**, *adj.*

cat'head' (kăt'hĕd'), *n.* 1. *Naut.* A projecting piece of timber or iron near the bow of a vessel, to which the anchor is hoisted and secured.
2. A nodule of ironstone. *Dial. Eng.*
3. *Mach.* A sleeve for attaching to slender lathe work, which serves, when running in a steady-rest bearing, to steady the work while turning in a lathe.

cat'head', *v. t.* *Naut.* To cat (an anchor).

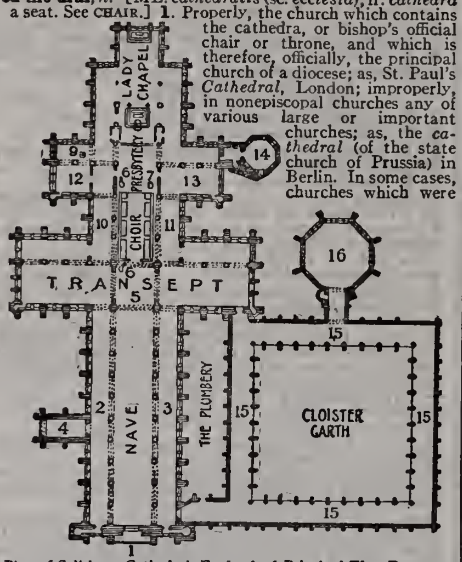
cathead chuck. *Mach.* See 6th CHUCK, 5.

cathead stopper. *Naut.* A chain or rope attached to a cathead and engaging the anchor by its ring.

ca·the'dra (k*á*·thē'dr*á*; kăth'ē·dr*á*; 277), *n.* [L. See CHAIR.] The official chair or throne of a bishop; hence, the episcopal see or dignity. By extension, the official chair of a professor, or teacher, or any person in high authority. Cf. EX CATHEDRA.

ca·the'dral (k*á*·thē'dr*ă*l), *adj.* [ML. *cathedralis.*] 1. Of, pert. to, or containing, the cathedra, or bishop's chair; designating, or pert. to, the bishop's church, which is the head church of a diocese; as, a *cathedral* church.
2. Emanating from the chair of office or authority, as of a pope or bishop; ex cathedra; official; authoritative; as, a *cathedral* announcement.
3. Resembling aisles of a cathedral; as, *cathedral* walks beneath the elms.

ca·the'dral, *n.* [ML. *cathedralis* (sc. *ecclesia*), fr. *cathedra* a seat. See CHAIR.] 1. Properly, the church which contains the cathedra, or bishop's official chair or throne, and which is therefore, officially, the principal church of a diocese; as, St. Paul's *Cathedral*, London; improperly, in nonepiscopal churches any of various large or important churches; as, the *cathedral* (of the state church of Prussia) in Berlin. In some cases, churches which were



Plan of Salisbury Cathedral, England. 1 Principal West Doorway; 2, 3 Aisles of Nave; 4 North Porch; 5 Tower; 6, 6 Pulpits; 7 Throne; 8 Altar; 9 Font; 10, 11 Choir Aisles; 12, 13 East or Choir Transept; 14 Sacristy; 15 Cloister; 16 Chapter House.

once bishop's churches have retained the name *cathedral* in popular usage; as, St. Giles *Cathedral*, Edinburgh. Cathedrals, esp. in France, England, and Italy, include the finest examples of medieval architecture, esp. of Gothic style.
2. Figuratively, the chief center of authority or instruction.
3. The color grape.

☞ PHRASES are:

cathedral builder	cathedral dome	cathedral tower
cathedral church	cathedral music	cathedral town
cathedral close	cathedral service	cathedral walk

cathedral chimes. *Music.* Bell-metal tubes of different lengths, played by striking at the upper ends with a mallet, producing tones closely resembling distant church bells.

cathedral glass. Translucent sheet glass made by casting and rolling but without polishing.

cath'e·dral'ic (kăth'ē·drăl'ĭk), *adj.* Like a cathedral.

cath'e·drat'ic (-drăt'ĭk), *adj.* Also **cath'e·drat'i·cal** (-ĭ·k*ă*l). [ML. *cathedraticus.*] 1. *Law.* Of or pert. to the bishop's cathedra or the episcopal see; as, *cathedratic* payment or right.
2. Pronounced ex cathedra; authoritative.
— **cath'e·drat'i·cal·ly**, *adv.*

cath'e·drat'i·cum (kăth'ē·drăt'ĭ·kŭm), *n.; pl.* -CA (-k*á*). [ML.] *R.C.Ch.* An annual sum paid by a parish for the support of the bishop.

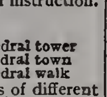
Cath'er·ine (kăth'ēr·ĭn), **Cath'a·rine** (-*á*·rĭn), **Cath'a·ri'na** (-rī'n*á*), *n.* [F. *Catherine*, L. *Catharina, Katerina, Ecaterina*, fr. Gr. *Aikaterinē, Aikaterina*, influenced by Gr. *katharos* pure.] Fem. proper name. L. *Catharina*; F. *Catherine* (k*á*'t'rēn'); It. *Caterina* (kä'tā·rē'nä); Sp. *Catalina* (kä'tā·lē'nä); Pg. *Catharina* (k*á*'t*á*·rē'n*á*); G. *Katharine* (kä'tä·rē'nē), *Katrina* (kä·trē'nä). — Dim. or shortened forms *Kate, Katrine, Kit, Kitty, Cat, Cathy, Catty.*

Catherine, Saint. The name of several saints, chief among whom are: **a Catherine of Alexandria** (4th century) associated with a legend of her escape from martyrdom on a spiked wheel (see CATHERINE WHEEL, *Ety.*). **b Catherine of Siena** (d. 1380), noted as an ascetic, counselor, reformer.

Cath'er·ine Glov'er (glŭv'ēr). See FAIR MAID OF PERTH.

Catherine pear. A small early variety of pear.

Cath'er·ine wheel (kăth'ēr·ĭn). [After St. *Catherine* of Alexandria, who is represented with a *wheel*, in allusion to the attempt to torture her on a spiked wheel or wheels.] 1. A representation, esp. in *Her.*, of a wheel with spikes projecting from the rim.



Catherine Wheel, 1.

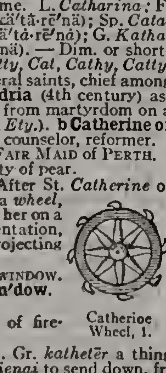
2. *Arch.* = ROSE WINDOW and WHEEL WINDOW. Called also **Cath'er·ine–wheel' win'dow.**
3. A cart wheel (sense 3).
4. *Fireworks.* A revolving piece of fireworks suggestive of a rose window.

cath'e·ter (kăth'ē·tēr), *n.* [LL., fr. Gr. *kathetēr* a thing let down or put in, catheter, fr. *kathienai* to send down, fr. *kata* down + *hienai* to send.] *Med.* Any of various instruments for passing along mucous canals to withdraw fluid from a cavity; esp., a tubular instrument to be introduced into the bladder through the urethra to draw off the urine.

catheter fever. *Med.* Fever following the passage of a urethral catheter, caused by infection of the urinary tract.

cath'e·ter·ize (-īz), *v.t.;* -IZED (-īzd); -IZ'ING (-īz'ĭng). *Med.* To introduce a catheter into. — **cath'e·ter·ism** (-ĭz'm), *n.* — **cath'e·ter·i·za'tion** (-ĭ·zā'shŭn; -ī·zā'shŭn), *n.*

cath'e·tom'e·ter (kăth'ē·tŏm'ē·tēr), *n.* Also **kath'e·tom'e·ter.** [Gr. *kathetos* vertical height + *-meter.*] An instrument for accurate measurement of small differences of height, esp. differences in height of the upper surfaces of two columns of mercury or other fluid, or of the same column at different times. It consists (see *Illust.*) of a telescopic leveling apparatus (*d*), which slides up or down a perpendicular standard with a finely graduated scale (*bb*). — **cath'e·to·met'ric** (-tō·mĕt'rĭk), *adj.*



Cathetometer. *bb* Divided Scale; *d* Horizontal Telescope.

cath'e·tus (kăth'ē·tŭs), *n.; pl.* -TI (-tī). [L., fr. Gr. *kathetos* a perpendicular line, fr. *kathienai* let down, fr. *kathienai*. See CATHETER.] *Geom.* A line dropped perpendicularly on a surface or another line.

ca·thex'is (k*á*·thĕk'sĭs), *n.* [NL., fr. Gr. *kathexis* retention.] *Psychoanalysis.* The concentration of desire upon some object or idea; also, the amount of desire so concentrated. — **ca·thec'tic** (k*á*·thĕk'tĭk), *adj.*

cat hip. A fruit of a rose, esp. of the dog rose. *Dial. Eng.*

ca·this'ma (k*á*·thĭz'm*á*), *n.* [Gr. *kathisma*, fr. *kathizesthai* to sit.] *Eastern Ch.* One of certain long prayers, esp., one of the twenty sections of the Psalter, during the saying of which the clergy are seated.

Cath'leen Ni Hou'la·han (kăth'lēn nē o͞o'l*á*·h*ă*n). [Ir. *Caitlīn nī Uallachāin* Kathleen Houlahan.] An allegorical name for Ireland. See ROISIN DUBH.

cath'ode (kăth'ōd), *n.* Also **kath'ode.** [Gr. *kathodos* descent, fr. *kata* down + *hodos* way.] *Physics & Chem.* The negative pole or electrode of an electrolytic cell, vacuum tube, etc.; — opposed to *anode*. See CELL, *n.*, 12.

cathode current. *Elec.* The total current to or from the cathode in an electron tube.

cathode drop. *Arc Welding.* The voltage drop between the arc stream and negative electrode.

cathode luminescence. See LUMINESCENCE.

cathode particle. = ELECTRON.

cathode ray. *Physics.* Any of the rays projected from the cathode of a vacuum tube in which an electric discharge takes place. They consist of electrons, moving in straight lines unless deflected by the action of a magnetic or electric field, and differ from the beta rays only in having smaller velocities. By impinging on solids the cathode rays generate X rays. See ELECTRON, BETA RAY.

cath'ode–ray' os'cil·lo·graph'. *Elec.* An oscillograph in which the moving element is a pencil of cathode rays.

cathode–ray tube. *Elec.* A discharge tube used for producing cathode rays.

ca·thod'ic (k*á*·thŏd'ĭk), *adj.* Also **ca·thod'i·cal** (-ĭ·k*ă*l).
1. *Physics.* Of, at, or pertaining to the cathode.
2. (In this sense usually spelled **ka·thod'ic.**) *Bot.* Turned away; — said only of that half of a leaf which is turned away from the course of the genetic spiral. Cf. ANODIC.
— **ca·thod'i·cal·ly**, *adv.*

ca·thod'o·flu'o·res'cence (-ō·flo͞o'ō·rĕs'ĕns; -'ns), *n.* *Physics.* Fluorescence due to exposure to cathode rays.

ca·thod'o·graph (k*á*·thŏd'ō·grăf; 83), *n.* Also **ca·thod'e·graph** (-ē·grăf), **ka·thod'o·graph.** [*cathode* + *-graph.*] *Physics.* A picture made by X rays; a radiograph. Cf. SKIAGRAPH. — **cath'o·dog'ra·phy** (kăth'ō·dŏg'r*á*·fĭ), *n.*

ca·thod'o·lu'mi·nes'cence (-lū'mĭ·nĕs'ĕns; -'ns), *n.* *Physics & Chem.* Luminescence produced when a substance is bombarded with cathode rays.

cat'hole' (kăt'hōl'), *n.* **a** An opening, as in a door, for a cat to go through. **b** *Rare.* A deep pool in a river. **c** *Naut. Now Rare.* One of two holes astern, above the gun-room ports, through which hawsers may be passed.

cath'o·lic (kăth'ō·lĭk), *adj.* [F. and L.; F. *catholique*, fr. L. *catholicus*, fr. Gr. *katholikos*, universal, general, fr. *kath' holou* in general, fr. *kata* down, concerning + *holos* whole. See SAFE.] 1. Universal or general.

To bear their part in so great and *catholic* a war. *Southey.*

Specif., *Obs.*, universally prevalent or applicable; — esp. of laws, medicines, and customs.
2. Universal or general in human affairs or interests; affecting mankind as a whole, or affecting what is universal in human interest; also, broad or comprehensive in sympathies or understanding; liberal; as, a *catholic* taste.

[Whitmao's] is a *catholic* and polygiot vocabulary. *Louise Pound.*

3. Of or pertaining to the church universal; specif., designating, or pertaining to, the ancient undivided Christian church or a church or churches claiming historical continuity from it; hence, the true apostolic church; orthodox. After the Great Eastern Schism, *catholic* [*cap.*] and *orthodox* [*cap.*] acquired special meanings, the Western Church officially assuming the designation *Catholic* (see sense **a**) and the Eastern Church, the title of *Orthodox* (see ORTHODOX CHURCH). Since the Reformation *Catholic* has been used in the following senses: **a** Pertaining to or designating that body of Christians, or that church, of which the Pope, the bishop of Rome, is the spiritual head, and which is composed of Catholics of the Latin rite (often in English-speaking countries, esp. in the law, designated *Roman Catholics*) and Catholics of various Eastern rites, or *Uniats*, the title accepted by members of that communion and frequent in general use. See CATHOLIC CHURCH. **b** Pertaining to or designating a body of Christians belonging to any of various churches, which claim apostolic succession (which see) in their historic episcopate; — applied, esp. by Anglicans, to members of the Eastern and Latin churches, to Old Catholics, to Anglicans, and others, but, when used specifically, always with a distinguishing prefix, as Roman, Greek, Anglo-, etc. **c** Designating the entire body of Christian believers, or that part of it which accepts the Apostles' Creed.

☞ In this Dictionary *Roman Catholic* is used in labels and elsewhere as equal to *Catholic* in sense 3 **a**, above. When the reference is specifically to *Catholics of the Latin rite*, the label *Latin Rite*, or *Latin* is used.

Syn. — See ECUMENICAL.
— **cath'o·lic·ly**, *adv.* — **cath'o·lic·ness**, *n.*

cath'o·lic (kăth'ō·lĭk), *n.* 1. A person who belongs to the universal Christian church.
2. [*cap.*] A member of a Catholic church; specif., a member of the Roman Catholic Church; a Roman Catholic.
3. = CATHOLICOS. *Obs.*

ca·thol'i·cal (k*á*·thŏl'ĭ·k*ă*l), *adj.* Catholic.

ca·thol'i·cal·ly, *adv.* of CATHOLIC, CATHOLICAL.

Catholic Apostolic Church. *Eccl.* The body of Christians founded (about 1832) upon the teachings of those whom they regard as inspired prophets. The most prominent adherent was Rev. Edward Irving (1792–1834), and so they are commonly known as *Irvingites* (which name they disclaim as misleading, since Irving was a follower). They have a highly ritualistic and symbolic form of worship, and an elaborate hierarchy of apostles, prophets, etc. They hold the common Christian doctrines, but are premillenarians and emphasize the existence in modern times of the miraculous and prophetic element of early Christianity.

ca·thol'i·cate (k*á*·thŏl'ĭ·kāt), *n.* [ML. *catholicatus.*] The see of the Catholicos.

Catholic Church. That body of Christians of which the Pope, the bishop of Rome, is the head. See CATHOLIC, *adj.*, 3 **a**. The organization of the church centers in the Pope, who, as successor of Peter, has primacy of honor and

cath- = CATA-. [CATHAY.]
Ca'than (kā'th*ă*n). Var. of
Cath'a·ran (kăth'*á*·r*ă*n), *n.* A puritan; a Catharist. *Obs.*
Cath'a·rina, Cath'a·ri'na. Vars. of CATHERINE.
Cath'ars (kăth'ärz), *n. pl.* = CATHARI.
Ca·thar'ti·des (k*á*·thär'tĭ·dēz), *n. pl.* [NL.] Syn. of CATHARTAE. See CATHARTIDAE.
cat'hed'. Cathead. *Ref. Sp.*
ca·the'drated (k*á*·thē'drā·tĕd), *adj.* See -ED.
ca·the'dral·esque', *adj.* See [-ESQUE.]
ca·the'dral·like', *adj.* See LIKE.
ca·the'dral·wise', *adv.* See -WISE.
cath'e·drat'ed (kăth'ē·drāt'ĕd), *adj.* Seated on a cathedra. *Obs.*
cath'i·dine (kăth'ĭ·dēn; -dĭn), *n.* Also **-din.** *Chem.* See KAT.
cath'ine (kăth'ēn; -ĭn), *n.* Also **cath'in.** *Chem.* See KAT.
cath'i·nine (kăth'ĭ·nēn; -nĭn), *n.* Also **-nin.** *Chem.* See KAT.
cath'i'on, *n.* *Elec.* Erron. for CATION.
Cath'leen. Var. of KATHLEEN.
cath'o·dal (kăth'ō·d*ă*l), *adj.* = CATHODIC.
ca·thod'o·graf. Cathodograph. *Ref. Sp.*
ca·thog'ra·phy (k*á*·thŏg'r*á*·fĭ), *n.* = SKIAGRAPHY, 1. — **cath'o·graph** (kăth'ō·grăf), *n.*
ca·thol'i·cal·ness, *n.* See -NESS.

CATHEDRALS AND OTHER RELIGIOUS EDIFICES

1. St. Sophia, *Constantinople (Istanbul)*
2. St. Mark's, *Venice*
3. Canterbury Cathedral
4. Durham Cathedral
5. St. Peter's, *Rome*
6. Salisbury Cathedral
7. Chartres Cathedral
8. Amiens Cathedral
9. Notre Dame, *Paris*
10. Reims Cathedral

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jurisdiction, and is called "the Vicar of Christ on Earth." Associated with the Pope in the government of the church are the cardinals, archbishops, bishops, and priests. The cardinals, constituting the church's central executive body, reside principally in Rome, preside over the Congregations (see ROMAN CURIA), and are the papal electors. Archbishops and bishops govern dioceses, and are appointed by the Pope, recommendations being made by the hierarchy. Parish priests are assigned by the bishops. The doctrines of the church are based on Scripture and tradition and include all the formulas in the Apostles', Nicene, and Athanasian creeds, all that has been defined and declared by the General Councils, especially Trent and the Vatican, and the ex-cathedra utterances of the Pope. In agreement with most Christian bodies this church professes belief in the Unity and Trinity of God, the incarnation, death, and resurrection of the Saviour, the personal union of two natures, divine and human, in Christ. With the Eastern Church it upholds belief in Mary as the virgin mother of God, in grace, free will, atonement, seven sacraments, transubstantiation, invocation of saints, prayers for the dead, and in supporting religious orders of persons living under monastic rules. Its distinctive doctrines are those of papal supremacy and infallibility, and the Immaculate Conception. It has an elaborate liturgical form of worship centering about the Mass. See ROMAN CATHOLIC CHURCH.

catholic creditor. *Scots Law.* A creditor whose debt is a lien or charge on two or more items of the debtor's property.

Catholic Defenders. See DEFENDER, 3.

Catholic Emancipation Act. *Eng. Hist.* An act (10 Geo. IV, c. 7, 1829) freeing Roman Catholics from civil disabilities; — popularly so called.

Catholic Epistles. Seven Epistles, James, 1 & 2 Peter, 1, 2, & 3 John, and Jude, in the New Testament not addressed to a particular church. Also, *R.C.Ch.*, any epistle to the faithful in general, as by the later bishops of the early church.

Catholic frog. A toad (*Notaden bennetti*) of eastern Australia, having a mark on its back like a cross.

ca·thol′i·cism (kȧ·thŏl′ĭ·sĭz′m), *n.* [Cf. F. *catholicisme.*] **1.** Faith, practice, or system of the catholic church; adherence to the catholic church; catholicity.
2. [*cap.*] Faith, practice, or system of a Catholic church, specif. of the Roman Catholic Church; Catholicity.
3. [*cap.*] A peculiarity or characteristic of a Catholic.
4. Breadth of view; catholicity. *Rare.*

cath′o·lic′i·ty (kăth′ō·lĭs′ĭ·tĭ), *n.* [Cf. F. *catholicité.*] **1.** State or quality of being catholic; liberality of sentiments; also, universality. "Critical *catholicity.*" *Saintsbury.*
2. Catholicism (sense 1).
3. [*cap.*] The character of belonging to, or being in conformity with, a Catholic church, esp. the Roman Catholic Church; the faith or doctrine of a Catholic church.

ca·thol′i·cize (kȧ·thŏl′ĭ·sīz), *v. t. & i.;* CA·THOL′I·CIZED (-sīzd); CA·THOL′I·CIZ′ING (-sīz′ĭng). To make, or become, catholic or [*cap.*] Catholic. — **ca·thol′i·ciz′er** (-sīz′ẽr), *n.*

Catholic King, His Catholic Majesty. Formerly, titles given to the king of Spain.

Catholic League. See LEAGUE. — **Catholic Leaguers.**

ca·thol′i·co- (kȧ·thŏl′ĭ·kō-). A combining form for *catholic.*

ca·thol′i·con (-kŏn), *n.* [F. and ML.; F. *catholicon*, fr. ML. *catholicon, catholicum*, fr. Gr. *katholikos*, neut. *katholikon*, universal. See CATHOLIC.] **1.** A remedy for all diseases; a panacea; — now chiefly figuratively.
2. A comprehensive treatise; esp. [*cap.*], any one of several dictionaries of Latin and another language.
3. *Eastern Ch.* In the Coptic Church, esp., a lesson from the Catholic Epistles.

ca·thol′i·cos, ka·thol′i·kos (-kŏs), *n.* [Gr. *katholikos.* See CATHOLIC.] [*cap. when used specifically.*] Honorary title given some exarchs or primates in the Eastern Church, esp. the primates of Armenia, Ethiopia, Georgia, and Babylon. Cf. PATRIARCH, METROPOLITAN.

Catholic Reaction. Same as COUNTER REFORMATION.

ca·thol′i·cus (kȧ·thŏl′ĭ·kŭs), *n.* [ML.] *Eccl.* **a** A fiscal officer of the early Church. **b** = CATHOLICOS.

cath′o·lyte (kăth′ō·līt), *n.* [*catho*de + electro*lyte.*] *Physical Chem.* That portion of the electrolyte in the immediate vicinity of the cathode in an electrolytic cell.

cat hook. *Naut.* A hook attached to a cat block.

cat′hop′ (kăt′hŏp′), *n.* *Faro.* The situation in which two of the three cards left in the dealing box for the last turn are of the same denomination.

cat house. a The cat of medieval warfare. **b** *Slang.* A brothel.

ca′′thro′, *or* ca′′throw (kä′thrō; -throu; kô′-), *n.* [Scot., lit., call (in sense of drive) through. *Oxf. E. D.*] Disturbance; commotion. *Scot.*

cat ice, cat's ice. Thin ice from under which the water has receded; shell ice.

Cat′i·li·nar′i·an (kăt′ĭ·lĭ·nâr′ĭ·ăn), *adj.* [L. *Catilinarius.*] Of, pertaining to, or like, Catiline, a profligate Roman noble who conspired to overthrow the government of Rome, 63 B.C. — *n.* A Catilinarian conspirator.

cat′–in–clo′ver, *n.* The bird's-foot trefoil. *Eng.*

cat′i′on (kăt′ī′ŏn), *n.* Also **kat′i′on.** [Gr. *kata* downward + *iōn* going, neut. *ion*, pres. part. of *ienai* to go.] *Physical Chem.* **a** The positively charged particle or ion in an electrolyzed solution which travels to the cathode and is there discharged, evolved, or deposited. **b** By extension, any positive ion. See ION. — **cat′i·on′ic** (ī·ŏn′ĭk), *adj.*

ca·ti′vo (kȧ·tē′vō), *n.; pl.* -vos (-vōz). [Amer. Sp.] A large tree (*Prioria copaifera*), family Fabaceae, of Panama.

cat′jang (kăt′jăng), *n.* [D. *katjang*, fr. Malay & Sundanese *kacan.* Cf. CAJANUS.] The pigeon pea (*Cajanus cajan*).

cat′kin (kăt′kĭn), *n.* [*cat* + *-kin;* — from its resemblance to a cat's tail.] *Bot.* A scaly spike or inflorescence, as in the willow and birch; an ament. — **cat′kin·ate** (-āt), *adj.*

cat ladder. A scaling ladder laid on a roof or placed perpendicularly against a wall. *Eng.*

cat′lap′ (kăt′lăp′), *n.* Weak drink, fit only for a cat to lap. *Orig. Dial. Eng. & Scot.*

cat′like′ (-līk′), *adj.* Like a cat; stealthy; noiseless.

cat′ling (-lĭng), *n.* [*cat* + 1st *-ling.*] **1.** A little cat; a kitten. "Cat nor *catling.*" *Drummond.*
2. Catgut; a catgut string. *Rare.* *Shak.*
3. The smallest string on a stringed instrument, esp. a lute.
4. Also **cat′lin** (-lĭn). *Surg.* A double-edged, sharp-pointed knife used in amputations.

cat′lin·ite (-lĭn·īt), *n.* [After George *Catlin*, Am. traveler.] *Petrog.* A red indurated clay from the Upper Missouri region, used by Indians for tobacco pipes; pipestone.

cat′–locks′, *n.* A cotton grass (*Eriophorum callithrix*).

cat′mal′i·son (kăt′măl′ĭ·z′n; -s′n), *n.* [*cat* + *malison;* — so called prob. because the cat cannot get in.] A cupboard in the ceiling, near a chimney. *N. of Eng.*

cat′mint′ (-mĭnt′), *n.* [*cat* + *mint.*] Catnip.

cat nap. A very short light sleep; a short light nap.

cat′nip (kăt′nĭp), *n.* Also **cat′nep** (-nĕp). [*cat* + *nip*, dial. form of *nep* catnip.] A well-known strong-scented herb (*Nepeta cataria*) having whorls of small blue flowers in a terminal spike. The herbage has been used as a domestic remedy in amenorrhea, chlorosis, and flatulent colic of infants. Cats are very fond of it. In England usually called *catmint.*

Catnip (*Nepeta cataria*).

cat′o- (kăt′ō-). A combining form from Greek *katō*, meaning *down.*

ca·tob′le·pas (kȧ·tŏb′lē·păs), *n.* [L., fr. Gr. *katōbleps*, fr. *katō* down + *blepein* to look.] **a** An unknown, perh. mythical, African quadruped, which has been identified with the gnu. **b** Hence, the gnu.

Cat′o·ca′la (kăt′ō·kā′lȧ), *n.* [NL., fr. Gr. *katō* below, taken in sense of behind + *kalos* beautiful.] *Zool.* A large and widely distributed genus of rather large moths of the family Noctuidae. — **cat′o·ca′lid** (-lĭd), *n.*

cat′o·ca·thar′tic (kăt′ō·kȧ·thär′tĭk), *n.* [*cato-* + *cathartic.*] *Med.* A remedy that purges by alvine discharges.

ca·toc′tin (kȧ·tŏk′tĭn), *n.* [From *Catoctin* Mt., Md.] *Geol.* A residual hill or ridge that rises above a peneplain and preserves on its summit a remnant of an older peneplain.

cat′o·dont (kăt′ō·dŏnt), *adj.* [*cat-* + *-odont.*] *Zool.* **a** Having teeth only in the lower jaw. **b** Of or pertaining to the sperm whale.

cat′o·gene (kăt′ō·jēn), *adj.* [*cato-* + *-gene.*] *Geol.* Formed from above; — applied esp. to sedimentary rocks. — **cat′o·gen′ic** (-jĕn′ĭk), *adj.*

Ca′to·ism (kā′tō·ĭz′m), *n.* Austerity or harshness, — a characteristic of the Catos. Cf. CATONIAN.

Ca·to′ni·an (kā·tō′nĭ·ăn; 159), *adj.* [L. *Catonianus.*] Of, pert. to, or resembling, Cato, esp. Cato the Elder or Cato of Utica, both remarkable for austerity of life and manners. — *n.* A follower of Cato.

Ca·ton′ic (kā·tŏn′ĭk), *adj.* Catonian.

Ca·ton′i·cal·ly (-ĭ·kăl·ĭ), *adv.* In the manner of Cato; specif., by suicide (referring to Cato of Utica).

cat′–o′–nine′–tails′ (kăt′ō·nīn′tālz′), *n. sing. & pl.* **a** An instrument consisting of, usually nine, knotted lines or cords fastened to a handle, formerly used to flog offenders on the bare back. **b** *U. S.* A cattail.

Ca′to·nism (kā′tō·nĭz′m), *n.* Catoism.

ca·top′tric (kȧ·tŏp′trĭk), **ca·top′tri·cal** (-trĭ·kăl), *adj.* [Gr. *katoptrikos*, fr. *katoptron* mirror. See CATA-; OPTIC.] Pertaining to a mirror or reflected light; produced by, or based on, reflection. — **ca·top′tri·cal·ly,** *adv.*

catoptric light. A lighting system, used esp. in lighthouses, in which one or more mirrors reflect the light from a lamp in a parallel beam so as to be visible at a great distance.

ca·top′trics (kȧ·tŏp′trĭks), *n.* Also **ca·top′tric.** [See CATOPTRIC.] That part of optics which explains the properties and phenomena of reflected light, esp. light reflected from mirrors or other polished bodies; — formerly called *anacamptics.* See -ICS, DIOPTRICS.

catoptric telescope. A reflecting telescope. See TELESCOPE.

ca·top′trite, ka·top′trite (kȧ·tŏp′trīt), *n.* [Gr. *katoptron* mirror; — from its brilliant luster.] *Mineral.* A silicoantimonate of manganese, aluminum, magnesium, and iron, occurring in metallic black monoclinic crystals.

ca·top′tro·man′cy (-trō·măn′sĭ), *n.* [Gr. *katoptron* mirror + *-mancy.*] Divination by a mirror or by crystal gazing. — **ca·top′tro·man′tic** (-măn′tĭk), *adj.*

Ca′to·qui′na (kä′tōō·kē′nȧ), *adj.* Var. of KATUKINA.

Ca′to·qui′na, *n.* An Indian of a Katukina tribe of Brazil.

Cat′o·stom′i·dae (kăt′ō·stŏm′ĭ·dē), *n. pl.* [NL., fr. *cato-* + Gr. *stoma* mouth.] *Zool.* The family of physostomous fresh-water fishes consisting of the suckers (see SUCKER). It is closely related to, and in old classifications formed a part of, the Cyprinidae. — **ca·tos′to·mid** (kȧ·tŏs′tō·mĭd), *n. & adj.* — **ca·tos′to·moid** (-moid), *adj. & n.*

Ca·tos′to·mus (kȧ·tŏs′tō·mŭs), *n.* [NL. See CATOSTOMIDAE.] Genus of suckers typical of the family Catostomidae.

cat owl. An owl having ear tufts, as the great horned owl, long-eared owl, and screech owl.

cat pea. The cow vetch.

cat′piece′ (kăt′pēs′), *n.* *Logging.* A stick with holes at regular intervals into which uprights are fitted so as to regulate the width of a sluiceway entrance.

cat pine. = WHITE SPRUCE **a.**

cat′pipe′ (kăt′pīp′), *n.* A device for making catcalls.

cat purchase. = CAT TACKLE.

cat rig. *Naut.* A rig consisting of a single mast placed extremely far forward and carrying a single large sail extended by a long boom. See CATBOAT, *Illust.* — **cat′–rigged′** (kăt′rĭgd′), *adj.*

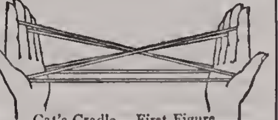
cat salt. Finely granulated salt formed out of bittern.

cats and dogs. a *Colloq.* Great quantities; as, to rain *cats and dogs.* **b** *Slang, U. S.* Speculative securities of uncertain standing or of no value.

cat's′–claw′ (kăts′klô′), *n.* **a** *W. Ind.* (1) A climbing shrub (*Batocydia unguis*), family Bignoniaceae, with hooked tendrils. (2) An erect shrub (*Pithecolobium unguis-cati*) with curved pointed pods and black shining seeds. **b** *Southwestern U. S.* Any of several prickly shrubs, as *Acacia greggii* and *Mimosa biuncifera.* **c** *pl.* *Eng.* (1) The kidney vetch. (2) The bird's-foot trefoil.

cat's′–cra′dle, *n.* *Bot.* The ribwort.

cat's cradle. A game played, esp. by children, with a string looped on the fingers so as to resemble a small cradle. Loops are transferred from the fingers of one to those of another, at each transfer with a change of form.


Cat's Cradle. First Figure.

cat's′–ear′, *n.* **1. a** A European weed (*Hypochaeris radicata*) with yellow flower heads, and leaves resembling a cat's ear. See CAPEWEED **c.** **b** Any of various other plants with soft hairy blossoms or leaves, as the cudweed *Antennaria dioica* and the hawkweed *Hieracium gronovii.* **c** *Western U.S.* Any plant of the genus *Calochortus.*
2. *Med.* A deformity of the human ear giving it some similarity in appearance to that of a cat.

cat's′–eye′, *n.* **1.** *Mineral.* A gem exhibiting opalescent reflections from within, like the eye of a cat, and commonly cut cabochon; specif.: **a** A variety of chrysoberyl. **b** A variety of quartz or chalcedony, inferior to chrysoberyl.
2. Either of two kinds of speedwell, *Veronica chamaedrys* and *V. persica*, having small bright-blue flowers.
3. *Med.* A morbid opalescent appearance of the pupil of the eye occurring in glioma of the retina.

cat's–eye shutter. *Photom.* A variable-aperture diaphragm having two plates sliding over each other, cut so as to maintain a square opening.

cat's′–fac′es (kăts′fās′ĭz), *n.* The pansy. *Dial. Eng.*

cat's′–foot′, *n.* **a** Ground ivy. **b** See ANTENNARIA. **c** = WILD GINGER **b.**

cat's gold. = MOSAIC GOLD **a.**

cat's′–grass′, *n.* Sun spurge.

cat's′–hair′, *n.* Sun spurge.

cat's hair. 1. A kind of tumor or sore. *Obs.*
2. Downy or pubescent hair.

cat shark. Any spotted dogfish belonging to *Scylliorhinus* or allied genera.

cat's heal–all. Catnip.

cat's ice. = CAT ICE.

cat silver. Mica. *Archaic.*

Cats′kill (kăts′kĭl), *n.* **1.** *Angling.* An artificial fly with tan or brown speckled wings, orange body, and brown hackle.
2. The Catskill formation (which see).

Cats′kill for·ma′tion (kăts′kĭl). *Geol.* A series of red shales and sandstones in the Catskill region, New York, the uppermost part of the Devonian system. It is a local facies of the Chautauquan series. See GEOLOGY, *Chart.*

cat′skin′ (kăt′skĭn′), *n.* **1.** The skin of a cat.
2. An inferior kind of silk hat. *Slang, Eng.*

cat sleep. A cat nap.

cat's′–milk′, *n.* Sun spurge.

cat snake. A back-fanged terrestrial snake (*Tarbophis fallax*) of southern Europe and Syria; — so called from its manner of stalking lizards.

cat′so (kăt′sō), *n.; pl.* CATSOS (-sōz). [It. *cazzo.*] A base fellow; a rogue. *Obs. Slang.*

cat's′–paw′, *n.* **1.** *Naut.* **a** A light air which ruffles the surface of the water in irregular patches during a calm. **b** A hitch in the bight of a rope so made as to form two eyes, into which a tackle may be hooked. See KNOT, *Table.*
2. A dupe; a tool; one used by another to accomplish his purposes; — alluding to the fable of the monkey using the cat's paw to draw the roasting chestnuts out of the fire.
3. *Bot.* **a** = CAT'S-FOOT. **b** A Tasmanian plant (*Trichinium spathulatum*), family Amaranthaceae.

cat's′–paw′, *v. t.* *Naut.* **a** To ruffle by a cat's-paw. **b** To connect by a cat's-paw (hitch).

cat spruce. = WHITE SPRUCE **a.**

cat's purr. The purr of a cat; *Med.*, a peculiar sound sometimes heard in auscultation of the heart in valvular diseases.

cat squirrel. a See FOX SQUIRREL. **b** *Dial. Eng.* The common European squirrel. **c** The cacomistle. **d** *Southern U. S.* The gray squirrel.

cat's′–tail′, *n.* **1.** *Bot.* **a** The field horsetail (*Equisetum arvense*) or a related species. **b** *Eng.* Timothy (grass). **c** Blueweed, or viper's bugloss. **d** The cotton grass *Eriophorum callithrix.* **e** = CATTAIL, 1 **a.**
2. (Usually *cat's tail.*) In French folklore, the last few stalks of standing grain cut by the reaper, the cat being identified with the corn god.
3. See CIRRUS, 2.

cat's–tail grass. Timothy (grass). *Eng.*

cat′step′ (kăt′stĕp′), *n.* A corbiestep.

cat′stick′ (kăt′stĭk′), *n.* A stick or club used in the game of trapball or of tipcat.

cat′stitch′ (-stĭch′), *n.* A decorative stitch used in felling hems or joining the pieces of fabric in a patchwork quilt. — **cat′stitch′er** (-ẽr), *n.*

cat′stone′ (kăt′stōn′), **cat′stane′** (-stān′), *n.* [Gael. *cath* battle + E. *stone, stane.*] *Archaeol.* A menhir or a round cairn believed to mark the site of a battle.

cat's′–tongue′, *n.* = VELVET BUR. *W. Ind.*

cat stopper. *Naut.* The cathead stopper; a ring stopper.

cat's valerian. The common valerian.

cat's′–wort′, *n.* Catnip.

cat′ta·bu (kăt′ȧ·bū), *n.* [*cattle* + *zebu.* Cf. CATTALO.] A hybrid between the common domestic cattle and the zebu, or Indian humped cattle.

cat tackle. *Naut.* The tackle used in hoisting an anchor, consisting of the cat block, catfall, and the sheaves in the cathead; — called also *cat purchase.*

cat′tail′ (kăt′tāl′), *n.* [*cat* + *tail;* — with ref. to the furry spikes.] **1. a** A tall marsh plant (*Typha latifolia*) with long flat leaves used for seating chairs, making mats, etc. In England it is called *reed mace.* Also, any other species of *Typha.* **b** A catkin or ament.
2. The color musk.
3. *Naut.* The inboard end of the cathead.

cattail family. The Typhaceae.

cattail flag. = CATTAIL, 1 **a.**

cattail fungus. An ascomycete (*Epichloe typhina*) of the family Hypocreaceae. See JOINT RUST.

cattail grass. Timothy (grass). *Eng.*

cattail millet. a Italian millet. **b** = PEARL MILLET **a.**

cattail rush. = CATTAIL, 1 **a.**

cat′ta·lo (kăt′ȧ·lō), *n.; pl.* -LOES or -LOS (-lōz). [*cattle* + *buffalo.*] A hybrid between the bison, or American buffalo, and domestic cattle, hardier than the latter.

cat′ter·y (kăt′ẽr·ĭ), *n.; pl.* -TERIES (-ĭz). A place for keeping or raising cats.

cat thyme. A European germander (*Teucrium marum*) with pungent aromatic foliage relished by cats.

cat′ti·man′doo (kăt′ĭ·măn′dōō), *n.* [Telugu *kattimandu* the name of the plant.] A gum obtained in India from the cactuslike *Euphorbia trigona.* It is used as a cement.

cat′tish (kăt′ĭsh), *adj.* **a** Catlike; feline. **b** Catty. — **cat′tish·ly,** *adv.* — **cat′tish·ness,** *n.*

cat′tle (kăt′′l), *n.* [ME. *catel, chatel*, goods, property, fr. ONF. *catel*, OF. *chatel*, fr. L. *capitale*, neut. of. *capitalis* relating to the head, chief, fr. *caput* head, principal sum, capital, stock. See CHIEF; cf. CHATTEL.] **1.** Property or an article of property; chattel; — used of personal property, money, capital, etc., and in phrases, as *goods and cattel* (or *cattels*), now *goods and chattels.* *Obs.*
2. a Collectively, live animals held as property or raised for some use, now, commonly, including only domesticated, usually mature, bovine animals, as cows, bulls, and steers, but sometimes, esp. formerly, all domesticated quadrupeds, as sheep, goats, horses, mules, asses, and swine. See BEEF CATTLE, DAIRY CATTLE. **b** Formerly, in *sing.*, a beast, ox, etc.
3. By extension: **a** Such animals as vermin, insects, etc. *Obs.*, except, specif., certain aphids that are attended by ants. See ANT COW. **b** Human beings; — used in contempt.

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ca·thol′i·cist, *n.* See -IST.
cat′hood, *n.* See -HOOD.
Ca·thu′a (kȧ·thū′ȧ). *Bib.*
Cath′y (kăth′ĭ), *n.* Dim. of CATHERINE.
ca·tin′ga. [Pg. & Tupi.] Var. of CAATINGA.
cat′i. Cattle. *Ref. Sp.*
cat′mon. Var. of KATMON.
cat′nache (kăt′năsh), *n.* [Corrupt. of *catananche.*] = BLUE SUCCORY.
Cat′o·don (kăt′ō·dŏn), *n.* [NL. See CATODONT.] Syn. of PHYSETER.
‖Ca′to Ma′jor. [L.] See DE SENECTUTE.
cat′–o′–moun′tain. Var. of CATAMOUNTAIN.
cat′proof′, *adj.* See -PROOF.
Catriona, *n.* See DAVID BALFOUR.
cat′sup. Var. of CATCHUP.
cat·tan′. Var. of CATAN.
cattel, cattell. † CATTLE.
Cat′ti, *n. pl.* [L.] See CHATTI.
cat′tie. Var. of CATTY.
cat′ting, *pres. part. & verbal n.* of CAT, *v.*

pre·say′ (prē·sā′), *v. t.*; -SAID′ (-sĕd′); -SAY′ING (-sā′ĭng). To preface by saying. *Rare.*

presby-. A combining form, Greek *presby-*, from *presbys*, an old man, used to denote *old age*, as in *presbyopia.*

pres′by·cou′sis, pres′by·cu′sis (prĕz′bĭ·kū′sĭs; prĕs′-), *n.* [NL., fr. *presby-* + *-acousis.*] *Med.* The condition of hearing less acutely, occurring in old age.

pres′by·ope (prĕz′bĭ·ōp; prĕs′-), *n.* *Med.* One who has presbyopia; a farsighted person.

pres′by·o·phre′ni·a (-ō·frē′nĭ·ȧ), *n.* [NL. See PRESBY-; -PHRENIA.] *Psychiatry.* A special form of senile dementia, occurring chiefly in women, and characterized by loss of memory to the point of disorientation, with preservation of mobility, loquacity, good spirits, and considerable mental alertness. — **pres′by·o·phren′ic** (-frĕn′ĭk), *adj.*

pres′by·o′pi·a (-ō′pĭ·ȧ), *n.* [NL., fr. Gr. *presbys* an old man + *-opia.*] *Med.* A defect of vision associated with advancing age. It is due to loss of elasticity of the crystalline lens, which produces difficulty of accommodation and recession of the near point of vision, so that objects very near the eyes cannot be seen distinctly without convex glasses.

pres′by·op′ic (-ŏp′ĭk), *adj.* Affected by presbyopia; also, remedying presbyopia; farsighted. — *n.* A presbyope.

pres′byte (prĕz′bīt; prĕs′-), *n.* [Gr. *presbytēs* an old man; cf. F. *presbyte.*] A presbyope.

pres′by·ter (prĕz′bĭ·tĕr; prĕs′-), *n.* [LL., an elder, fr. Gr. *presbyteros.* See PRIEST.] **1.** An elder in the early Christian church, whose functions were not clearly distinguished from those of the bishop. Paul summoned the elders at Ephesus (*Acts* xx. 17) and told them to take heed to the flock "in the which the Holy Ghost hath made you bishops" (*Acts* xx. 28, *R. V.*).
2. In the Eastern and Latin churches, a priest.
3. In Presbyterian churches, an elder, especially a teaching elder, or minister. *Now Rare.*
4. [*cap.*] A Presbyterian. *Obs.*

pres·byt′er·al (prĕz·bĭt′ĕr·ăl; prĕs-), *adj* Presbyterial.

pres·byt′er·ate (-āt), *n.* [ML. *presbyteratus.*] The office or position of a presbyter or elder; eldership; the body of elders collectively; a presbytery.

pres·byt′er·at′ed (-āt′ĕd; -ĭd; 119), *adj.* Also **pres·byt′er·ate** (-āt). Governed by presbyters or elders.

‖**pres′by·tère′** (prĕz′bē′târ′), *n.* [F.] *R.C.Ch.* Presbytery; the residence of a parish priest in France.

pres′by·ter·ess (prĕz′bĭ·tĕr·ĕs; prĕs′-; -ĭs; 119), *n.* **1.** *Eccl. Hist.* In the early medieval churches: **a** A female presbyter, or elder; one of those aged widows who were dedicated to the service of the church and constituted an ecclesiastical order. **b** The wife of a presbyter or priest, esp. one who came under the operation of the rule requiring the continence of clergymen; also, a priest's concubine.
2. *Eastern Ch.* A priest's wife.

pres′by·te′ri·al (prĕz′bĭ·tēr′ĭ·ăl; prĕs′-), *adj.* [See PRESBYTERIAN.] Of or pertaining to presbyters or a presbytery; presbyterian. *Now Rare.*

Pres′by·te′ri·an (-ăn; 277), *adj.* [LL. *presbyterium* presbytery.] **a** [*not cap.*] Of or pertaining to a presbyter or presbyters, or ecclesiastical government by presbyters. **b** [*cap.*] Designating, or pertaining to, a church or churches which uphold church government by presbyters; of or pertaining to the doctrine, discipline, and worship of a communion so governed. The Presbyterian churches are Calvinistic in doctrine and have as essential principles: (1) the right of all the members of the church to a share in its government, which, however, is exercised not directly but through elders (see ELDER, *n.*, 3) chosen or approved by them; (2) the recognition of only one order in the Christian ministry, all the members of which are equal and exercise all the functions of that ministry; and (3) the unity of the whole church, expressed in a graded system of church courts composed of ministers and elders. The courts are called by different names in different Presbyterian churches; in English-speaking countries the names most commonly used are **kirk** session (or session), presbytery, synod, and General Assembly (or General Synod). Some Presbyterian churches have an order of deacons, lay office bearers charged with the oversight of the temporal affairs of a congregation. Most of the Reformed churches on the continent of Europe and elsewhere are Presbyterian in polity, though they do not use the name. Most of the numerous schisms in Presbyterian churches have been due to differences of opinion as to the right relation of the church to the civil power. An organization, now called the **Presbyterian Alliance**, was formed in London in 1875 to promote co-operation between the Presbyterian churches of the world in matters of common interest; its General Council now meets every four years. It recognizes 113 Presbyterian churches or organizations throughout the world. The more important existing British and American Presbyterian churches are:

GREAT BRITAIN. — ***Church of Scotland***: the national church of Scotland, formed as a result of the Scottish Reformation; organized under John Knox's leadership in 1560 (cf. AULD KIRK, THE). Since the union with the United Free Church of Scotland in 1929 it includes the large majority of all Scottish Presbyterians. Though recognized by the state as the national church, it is completely free from state control. Fundamentally Calvinistic in doctrine, it allows its members a large liberty of belief. — ***Reformed Presbyterian Church of Scotland***: 1690; organized 1743. See CAMERONIAN, *adj.* & n., 1; COVENANTER, n., 2 c; COVENANTER CHURCH. The present church represents a small minority which refused to enter the union with the Free Church of Scotland in 1876. It is conservative in doctrine and practice. — ***Synod of United Original Seceders***: 1842; the representative of the ***Secession Church*** (*The Associate Synod*, 1733. See ASSOCIATE PRESBYTERY; SECESSION, 2 c; BURGHER, n., 2; AULD LICHT b). The majority of the United Original Seceders joined the Free Church of Scotland in 1852, but a small minority held out, and continued under the old name. It is conservative in doctrine and practice. Another body, the ***United Secession***, formed by a union of Seceder groups in 1827, united with the Relief Synod (1761; see RELIEF CHURCH) in 1847 to form the ***United Presbyterian Church (of Scotland).*** — ***Free Church of Scotland.*** 1843; see *the Disruption* under DISRUPTION. The present church represents a small minority which refused to enter the union with the United Presbyterian Church (of Scotland) in 1900, by which the United Free Church of Scotland was formed. See WEE FREE CHURCH. It is conservative in doctrine and practice. — ***Free Presbyterian Church of Scotland*** 1893; formed by a small minority, chiefly in the Highlands, which seceded from the Free Church of Scotland when that church passed the Declaratory Act, permitting a certain freedom in the interpretation of its subordinate standards. It is very conservative in doctrine and practice. — ***United Free Church of Scotland***: 1900; see *Free Church of Scotland*, above. The present church is a small minority which refused to enter the union with the Church of Scotland in 1929. — ***Presbyterian Church of England***: 1876; formed by the union of Presbyterian bodies which were formerly connected with Scottish Presbyterian churches. It has recently admitted women to the eldership. — ***Presbyterian Church of Wales*** (called also *Welsh Calvinistic Methodist Church* or *Connexion*): originated in the Evangelical revival of the 18th century (1743); its ministers were first presbyterially ordained in 1811. — ***Presbyterian Church in Ireland***: owes its origin to the Scottish settlement of Ulster in the early 17th century. It is strictly conservative in doctrine and practice. — ***Reformed Presbyterian Church of Ireland***: organized 1792; an offshoot from the Reformed Presbyterian Church of Scotland.

BRITISH EMPIRE. — ***United Church of Canada***: 1925; formed by a union of the Methodists, the Congregationalists, and the larger part of the Presbyterians. It is predominantly presbyterian in polity. The part of the ***Presbyterian Church in Canada*** which refused to enter the union continues under that name. — ***Presbyterian Church of Australia***: a union of bodies of Scottish origin formed in 1901. — ***Presbyterian Church of New Zealand***: a union of bodies of Scottish origin formed in 1901. — ***Presbyterian Church of South Africa***: a union of bodies of Scottish origin formed in 1897. There is an independent native branch. — ***Dutch Reformed Church in South Africa***: 1652; the church of the original Dutch settlers, an offshoot from the church in Holland, but strengthened by elements drawn from English-speaking Presbyterianism. There is an independent native branch.

UNITED STATES. — ***Presbyterian Church in the U. S. A.***: early 17th century (first presbytery formed 1706); largest body; divided from 1745 to 1758 into *Old Side* and *New Side*, and from 1838 to 1869 into *Old School* and *New School*; joined in 1906 by a majority of the Cumberland Presbyterian Church, and in 1920 by the Welsh Calvinistic Methodist Church. — ***Cumberland Presbyterian Church***: formed in 1810 by seceders from the Presbyterian Church in the U. S. A.; the larger part of it rejoined that body in 1906; the minority retained the old name and constitution; its doctrine is Calvinistic with Arminian modifications. — ***Colored Cumberland Presbyterian Church***: formed in 1869, after the Civil War, by the negro members of the Cumberland Presbyterian Church. — ***United Presbyterian Church of North America***: formed in 1858 by the union of the greater part of the Associate Synod and the Associate Reformed Synod; strongly conservative in doctrine. — ***Presbyterian Church in the U. S.***: formed in 1864 by the union of the United Synod of the Presbyterian Church and the Presbyterian Church in the Confederate States of America, which had separated from the New School and the Old School Presbyterian Churches, respectively, in 1858 and 1861, because of the strongly antislavery position adopted by these bodies; organizes its negro members in separate congregations; strongly conservative in doctrine. — ***Associate Synod of North America*** (Associate Presbyterian Church): organized in 1754 as the Associate Presbytery in connection with the Associate Synod in Scotland; continued as the Associate Presbytery of Pennsylvania by a small minority who refused to enter the union with the Reformed Presbytery in 1782; developed into the Associate Synod of North America in 1801; continued by another small minority who refused to enter the union with the Associate Reformed Presbyterian Church in 1858; encourages solemn public covenanting, opposes secret societies, sings psalms only in public worship. — ***Associate Reformed Presbyterian Church***: formed in 1782 by a union of the majority of the Associate Presbytery with a majority of the Reformed Presbytery; in 1822 the Synod of the Carolinas separated itself from that church, of whose loyalty to the distinctive principles of the denomination it was doubtful, and took the name of the ***Associate Reformed Synod of the South***; the rest of the church having united in 1858 with a majority of the Associate Synod to form the United Presbyterian Church of North America, the Synod of the South in 1913 resumed the old name; strictly Calvinistic in doctrine; sings psalms only in public worship. — ***Synod of the Reformed Presbyterian Church of North America***: originated in 1752, in connection with the Reformed Presbytery of Scotland; constituted as the ***Reformed Presbytery*** in 1774; reorganized in 1798 by those who had refused to enter the union with the Associate Presbytery (by which the Associate Reformed Presbyterian Church was formed) in 1782; became a Synod in 1809; divided in 1833 into the *Old Light* and the *New Light* churches, the former retaining the name; strongly conservative in doctrine; its members will neither vote nor hold public office under the present constitution; connection with secret societies is prohibited; uses neither hymns nor instrumental music in public worship. — ***Reformed Presbyterian Church in North America, General Synod***: constituted in 1833 by the New Light party in the Reformed Presbyterian Church, who held that participation in public affairs is a matter for individual decision; in other respects does not differ from the Synod of the Reformed Presbyterian Church in North America.

The ***Reformed Church in the United States*** (German Reformed Church), the ***Reformed Church in America*** (Dutch Reformed Church), and the ***Christian Reformed Church in North America*** are also Presbyterian in polity. See REFORMED, *adj.*, 1.

Pres′by·te′ri·an (prĕz′bĭ·tēr′ĭ·ăn; prĕs′-; 277), *n.* A supporter of Presbyterianism; a member of a Presbyterian church.

Pres′by·te′ri·an·ism (-ĭz′m), n. [Cf. F. *presbytérianisme.*] Church government by presbyters or elders; belief in, or adhesion to, such government; the faith and polity of the Presbyterian churches, taken collectively; the Presbyterian churches, taken collectively. See PRESBYTERIAN, *adj.*

Pres′by·te′ri·an·ize (-īz), *v. t.*; -IZED (-īzd); -IZ′ING (-īz′ĭng). To make or render Presbyterian.

Pres′by·te′ri·an·ly (-lĭ), *adv.* In a Presbyterian manner.

pres′by·te′ri·um (prĕz′bĭ·tēr′ĭ·ŭm; prĕs′-), *n.* [LL.] = PRESBYTERY, 1 & 5.

pres′by·ter′y (prĕz′bĭ·tĕr′ĭ; -tĕr·ĭ; prĕs′-; *formerly also accented* pres·byt′er·y), *n.*; *pl.* -TERIES (-ĭz). [OF. *presbiterie*, fr. LL. *presbyterium*, fr. Gr. *presbyterion.* See PRESBYTER.] **1.** The body of presbyters, esp. in an early Christian church. *Luke* xxii. 66; *Acts* xxii. 5; 1 *Tim.* iv. 14.
2. In Presbyterian churches, a court consisting of all the ministers of the congregations within a certain district, along with a representative elder (or elders) from each of these congregations. It is above the kirk session (or session) and below the synod in authority. Cf. CLASSIS, 3. In the 17th century in England the term was sometimes used of a congregational or parochial court, corresponding to the actual kirk session.
3. The district within which the congregations under the authority of a presbytery are situated; the jurisdiction of a presbytery.
4. The Presbyterian polity. Cf. EPISCOPACY; INDEPENDENCY, 3.
5. That part of a church reserved for the officiating priests, as the choir or sanctuary or both; properly, in ancient churches, that division east of the sanctuary containing the seat of the bishop and clergy. See CATHEDRAL, *Illust.*
6. The residence of the priest or priests of a parish; parochial residence; parsonage. *Chiefly R.C.Ch.*

pres·byt′i·a (prĕz·bĭt′ĭ·ȧ; prĕs-), *n.* [NL. See PRESBYTE.] Presbyopia. — **pres·byt′ic** (-ĭk), *adj.*

Pres′by·ti′nae (prĕz′bĭ·tī′nē; prĕs′-), *n. pl.* [NL.] *Zool.* The subfamily of Old World monkeys consisting of the langurs, guerezas, and proboscis monkey.

Pres·by′tis (prĕz·bī′tĭs; prĕs-), *n.* [NL., irreg. fr. Gr. *presbytēs* old man.] *Zool.* The genus consisting of the langurs.

pre·scap′u·la (prē·skăp′ū·lȧ), *n.* [NL., See PRE-.] *Anat.* The supraspinous part of the scapula.

pre·scap′u·lar (-lẽr), *adj.* **a** Anterior to the scapula. **b** Pertaining to or designating the prescapula.

pre·school′ (prē·skōōl′; 66), *adj.* Of, pertaining to, or designating, the period in a child's life, from infancy to the age of five, ordinarily preceding attendance at school.

pre′school′, *n.* A kindergarten or nursery school where children of preschool age, sometimes in age groups, are entered for observation and social and educational training.

pre′sci·ence (prē′shĭ·ĕns; prĕsh′ĭ-; *formerly also accented* pre·sci′ence), *n.* [OF., fr. LL. *praescientia.* See PRESCIENT.] Foreknowledge of events; foresight; specif., omniscience with regard to the future; as, with the *prescience* of a genius; divine omnipotence and *prescience.*

pre′–sci′ence (prē′sī′ĕns), *adj.* See PRE-, 2.

pre′sci·ent (prē′shĭ·ĕnt; prĕsh′ĭ-), *adj.* [F., fr. L. *praesciens, -entis*, pres. part. of *praescire* to foreknow, fr. *prae* before + *scire* to know. See SCIENCE.] Having or marked by prescience. "A feeling . . . not reminiscent but *prescient* of the future." *Pater.* — **pre′sci·ent·ly**, *adv.*

pre′sci·en·tif′ic (prē′sī·ĕn·tĭf′ĭk), *adj.* Before the development or the acquisition of scientific knowledge; often, unscientific; developed, discovered, or believed before being scientifically investigated.

pre·scind′ (prē·sĭnd′), *v.* [L. *praescindere* to cut off in front, fr. *prae* before + *scindere* to cut asunder. See SHED, *v.*] *Transitive:* **1.** To cut short, off, or away; to sever. *Now Rare.*
2. To abstract by an act of attention; to detach for purposes of thought; to separate in consideration; — with *from.*

Tell me sincerely whether you can frame a distinct idea of Eternity in general, *prescinded* from and exclusive of all thinking and corporeal beings, all particular things whatsoever. *Berkeley.*

——, *Intransitive:* To abstract or detach oneself; — with *from.*

pre·scind′ent (prē·sĭn′dĕnt), *adj.* [L. *praescindens*, pres. part.] Prescinding. *Rare.*

pre·scis′sion (prē·sĭzh′ŭn), *n.* [See PRESCIND; cf. SCISSION.] Act of prescinding; specif., a kind of abstraction by prescinding nonessentials. Cf. 1st PRECISION.

pre·scribe′ (prē·skrīb′), *v.*; -SCRIBED′ (-skrībd′); -SCRIB′ING (-skrīb′ĭng). [L. *praescribere, praescriptum*, fr. *prae* before + *scribere* to write. See SCRIBE.] *Transitive:* **1.** *Obs.* **a** To describe in advance; to foretell or make a prophecy of in writing. **b** To inscribe before or in front.
2. To lay down authoritatively as a guide, direction, or rule of action; to impose as a peremptory order; to dictate; direct; ordain; as, to *prescribe* regular hours of study.
3. To keep within limits or bounds; to restrain; to confine. *Now Rare.* "*Prescribed* her [the poet's Muse's] heights, and prun'd her tender wing." *Pope.*
4. *Law.* To outlaw or invalidate by prescription.
5. *Med.* To direct, designate, or order the use of, as a remedy; as, the doctor *prescribed* quinine.

——, *Intransitive:* **1.** To give directions; to dictate.

A forwardness to *prescribe* to their opinions. *Locke.*

2. *Law.* **a** To claim a title to a thing by right of prescription. **b** To become by prescription invalid or unenforceable; as, certain rights *prescribe* in twenty years.
3. *Med.* To write or give medical prescriptions.
Syn. — Limit, control, order, guide.

pre·scribe′ (prē·skrīb′), **pre·scrip′tion** (-skrĭp′shŭn), etc. Erron. vars. of PROSCRIBE, PROSCRIPTION, etc. *Obs.*

pre·scrib′er (prē·skrīb′ẽr), *n.* One who prescribes.

pre·script′ (prē·skrĭpt′; prē′skrĭpt), *adj.* [L. *praescriptus*, past part. of *praescribere*; cf. F. *prescrit.* See PRESCRIBE.] Ordained or appointed by authority; prescribed; prescriptive.

pre′script (prē′skrĭpt), *n.* [L. *praescriptum*; cf. F. *prescript.*] That which is prescribed; as: **a** Direction; rule. **b** *Obs.* (*pron.* prē·skrĭpt′) A medical prescription.

pre·scrip′ti·bil′i·ty (prē·skrĭp′tĭ·bĭl′ĭ·tĭ), *n.* Quality or state of being prescriptible.

pre·scrip′ti·ble (prē·skrĭp′tĭ·b′l), *adj.* [Cf. F. *prescriptible.*] Depending on, or derived from, prescription; proper to be prescribed; subject to prescription.

pre·scrip′tion (-shŭn), *n.* [F., fr. L. *praescriptio* an inscription, preface, precept, demurrer, prescription (in sense 4), fr. *praescribere.* See PRESCRIBE.] **1.** A prescribing or dictating; thing prescribed; direction; prescript.
2. Circumscription; restraint; limitation. *Obs.*
3. *Med.* A written direction for the preparation and use of a medicine; a medical recipe; also, a prescribed remedy.
4. *Rom. Law.* **a** A plea or clause, placed at the beginning of the formula in an action, limiting the scope of the claim or the remedy, as to a certain time. **b** The operation of the law whereby rights might be acquired or extinguished by limitation of the time within which the owner might have his remedy under the praetorian law, as distinguished from *usucapion*; later, *Civil Law*, the operation of the law whereby rights might be established by long exercise of their corresponding powers (***acquisitive prescription***) or extinguished by prolonged failure to exercise such powers (***extinctive prescription***), usucapion and prescription having become merged. Extinctive prescription corresponds essentially to limitation of actions in English law.
5. *Eng. & Amer. Common Law.* A prescribing for title; the establishment of a claim of title to a thing by virtue of

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pres′bi·ter. Presbyter. *Ref. Sp.*
pres′bi·te′ri·an. Presbyterian. *Ref. Sp.*
pres′by·a·cou′si·a, -a·cu′si·a, *n.* [NL., fr. *presby-* + *-acousia.*] *Med.* = PRESBYCOUSIS.
pres′by·o′py (prĕz′bĭ·ō′pĭ, prĕs′-), *n.* [Cf. F. *presbyopie.*] = PRESBYOPIA.
pres′by·te′ri·a prĕz′bĭ·tēr′ĭ·ȧ; prĕs′bĭ·tēr′ĭ·ȧ), *n.*, *pl.* of PRESBYTERIUM.
pres′by·te′ri·al·ly, *adv.* of PRESBYTERIAL.
Pres′by·ter·ism, *n.* Presbyterianism. *Obs.*
Presbyter John. = PRESTER JOHN. See PRESTER.
pres′by·ter·ship′, *n.* See -SHIP.
pres′by·tism (prĕz′bĭ·tĭz′m; prĕs′-), *n.* *Med.* = PRESBYOPIA.
pre·scene′, *n.* [*pre-* + L. *scena*, *scena*, stage.] Prelude. *Obs.*
pre·scap′u·la′ris (prē·skăp′ū·lā′rĭs), *n.* [NL.] = SUPRASPINATUS.
pre·scene′, *n.* A preceding scene. *Obs.* — **pre·sce′nic,** *adj.* *Obs.*
pre′scho·las′tic, *adj.* See PRE-, 2.
pre′sci·en′tial, *adj.* [LL. *praescientia* prescience.] Prescient. *Obs.*
pre′sci·ous (prē′shĭ·ŭs), *adj.* [L. *praescius*, fr. *prae* before + *scius* knowing.] Prescient. *Obs.*
pre·scout′, *adj.* See PRE-, 1 a.
pre·scored′, *adj.* See PRE-, 2.
pre·scrib′a·ble, *adj.* See -ABLE.

5. To discipline by church action. *Southern U.S.*

church (chûrch), *adj.* 1. Of or pertaining to a church; relating to or connected with a church; as, *church* affairs, uses, or purposes; one's *church* life; *church* work; belonging to a church; suitable for use in a church or its service; as, *church* furniture or music.
2. Composed of, or arranged or conducted by, members of a church; as, a *church* club; *church* socials and suppers.
3. [*often cap.*] Of or belonging to the established (or formerly established) church; — opposed to *chapel*. See CHURCH, *n.*, 1 **b**. *Chiefly Great Britain.*
She was *Church* . . . and wore a little steel cross. *J. Conrad.*

church′-ale′ (chûrch′āl′), *n.* A feast formerly held, esp. at dedication festivals, often in the churchyard or even in church, to raise money for church expenses and poor relief.

Church Army. An organization, similar to the Salvation Army, connected with the Church of England. It was founded in 1882 by Prebendary Wilson Carlile of London.

Church Assembly. *Ch. of Eng.* The body for the governance of the Church brought into being by the Church Enabling Act of 1919. It consists of a house of clergy and a house of laity elected from the dioceses and also of a house of bishops. The Assembly has power to pass measures relating to the Church for submission to Parliament for approval or rejection, but not for amendment.

church bell. The bell of a church (see BELL, *n.*, 1).

church book. A book used in or by a church. Specif.: **a** A service book. **b** A record of church proceedings, inventory, etc. **c** A parish register of births, marriages, and deaths.

church brief. = BRIEF, *n.*, 7 **c**.

Church Congress. A semiofficial conference of the clergy and laity of the Church of England, held annually since 1861 except during 1914–19.

church′craft′ (chûrch′kraft′), *n.* The art of church management.

church door. The outer door of a church, at which formerly various public acts, as marriages, were performed. Cf. *ad ostium ecclesiae*, under DOWER.

church embroidery. Gimped embroidery.

Church Enabling Act of 1919. *Ch. of Eng.* See CHURCH ASSEMBLY.

Churches of Christ. Orig., a part of the Disciples-of-Christ fellowship, later becoming a separate denomination.

Churches of God in Christ Jesus. See ADVENTIST, *Table.*

churches of the Desert. See DESERT, *n.*, 4.

Church Estates Commissioners. See ECCLESIASTICAL COMMISSIONERS.

church′go′er (chûrch′gō′ẽr), *n.* One who goes to church, esp. habitually or zealously. — **church′go′ing**, *n. & adj.*

church hand. *Paleog.* A text hand.

church house. 1. A house belonging to a church, as a rectory or parsonage, or as a parish house; specif., in form ***The Church House***, the central business house of the Church of England in Dean's Yard, Westminster.
2. A church, or meetinghouse. *Chiefly Southern U.S.*

church′i·an′i·ty (chûrch′ĭ·ăn′ĭ·tĭ), **church·an′i·ty** (chûrch-ăn′ĭ·tĭ), *n.* Attachment to the practices and interests of a church; — chiefly used opprobriously.

church′i·fied (chûr′chĭ·fīd), *adj.* Conformed to, or brought into sympathy with, the church or church forms or rules; — chiefly used opprobriously.

church′ing, *verbal n.* 1. Administration or reception of a rite by which one is churched; specif., a ceremony by which, after childbirth, women are received in the church with prayers, blessings, and thanksgiving.
2. Subjection to ecclesiastical influence. *Emerson.*

church invisible. *Theol.* The whole body of real Christians both on earth and in heaven, whether they are or were church members or not; also, the company of celestial beings and persons who have departed this life, or the company of real Christians on earth; — opposed to, or distinguished from, *church visible.*

Church in Wales. See ANGLICAN COMMUNION.

church′ite (chûrch′īt), *n.* A supporter of the, or a, church.

church′ite (chûrch′īt), *n.* [After A. H. *Church* (1834–1915), Eng. chemist.] *Mineral.* A hydrous cerium calcium phosphate, occurring in thin, drusy crusts of small light-gray to pink crystals. Sp. gr., 3.1.

church′less (chûrch′lĕs; -lĭs; 119), *adj.* **a** Having no church or church affiliation or connection. **b** Unsanctioned by the church.

church′like′ (-līk′), *adj.* Like a church; befitting a church or a churchman. *Shak.*

church′ly, *adj.* [AS. *ciriclic.*] Pertaining to, or suitable for, church; ecclesiastical. — **church′li·ness**, *n.*

church′man (chûrch′măn), *n.*; *pl.* -MEN (-mĕn). 1. An ecclesiastic, clergyman, or priest; sometimes, esp. one interested in theological or religious questions and ideas.
2. A churchwarden. *Obs.*
3. [*often cap.*] An adherent or devoted member of a church, esp. of an established church; specif., in England and the British Dominions and colonies, a member of the Church of England; in Scotland, a member of the Church of Scotland; and in the United States, a member of the Protestant Episcopal Church. "A zealous *churchman.*" *Macaulay.*

church′man·ly, *adj.* Pert. to, or becoming, a churchman.

church′man·ship, *n.* [*often cap.*] The attitude, belief, or practice of a churchman; — used chiefly in the Anglican Communion.

church′mas′ter (-mȧs′tẽr), *n.* A churchwarden. *Dial. Eng.*

church militant. The Christian church on earth, which is regarded as engaged in a constant warfare against its enemies, the powers of evil; — distinguished from *church triumphant.* Sometimes used jocosely of the church as engaged in actual warfare or polemics.

church mode. = ECCLESIASTICAL MODE. See MODE.

Church of Armenia. See ARMENIAN CHURCH.

Church of Christ, Scientist. See CHRISTIAN SCIENCE.

Church of Cy′prus (sī′prŭs). See ORTHODOX CHURCH.

Church of England. The established episcopal church of England. It holds itself originally to have been the outcome of a merging of the early British church and the churches resulting from the Scoto-Irish and Italian missions of the 6th century, and to have been by law established, though not founded, at the time of the Reformation when the supremacy of the Pope was repudiated and that of the sovereign asserted.

Church of Georgia. See ORTHODOX CHURCH.

Church of God. **a** A Christian sect, Arminian in doctrine, with headquarters in Cleveland, Tenn., first organized in 1886. **b** A Christian sect with headquarters at Anderson, Indiana, organized about 1880. It is evangelical, and practices immersion and footwashing.

Church of God (Adventist). See ADVENTIST, *Table.*

Church of God (New Dunkers). See DUNKER.

Church of God in Christ. **a** See MENNONITE, *n.* **b** A church organized in 1896 in Tennessee, stressing entire sanctification, speaking with tongues, and divine healing.

Church of God in North America. A denomination of Christians in the United States, founded by John Winebrenner in Pennsylvania, in 1830. They are Methodistic in polity and usage. Called also *Winebrennerians.*

Church of Greece. See ORTHODOX CHURCH.

Church of Ireland. The former established church of Ireland. It claims continuity in history with the ancient Celtic church, which was founded in the 5th century, asserts that it acknowledged the supremacy of Rome in the 12th century, and was reformed in the 16th century. It was episcopal in form and was disestablished Jan. 1, 1871, by the Irish Church Act (32 & 33 Vict. c. 42, 1869).

Church of Jesus Christ of Latter-day Saints. The church commonly called the Mormon Church from the *Book of Mormon* (which see). This church was organized April 6, 1830, at Fayette, Seneca County, New York. Its members claim that through apostasy the pure gospel of Christ was taken from the earth many centuries ago, and was restored through the instrumentality of Joseph Smith by a personal manifestation of the Father and the Son, and later by other heavenly messengers sent to him for that purpose. They accept the infinite atonement of Christ and believe that all men may be saved through obedience to the principles and ordinances of the gospel, of which faith in God, specifically in Jesus Christ as the Redeemer and Saviour of the race, repentance for sin, baptism by immersion for the remission of sin, and the laying on of hands for the reception of the Holy Ghost, form an essential part. They believe in prophecy, continued revelation, visions, healing, tongues, and all the gifts and powers of the primitive church. Plural marriage was introduced in the church by Joseph Smith, and was practiced by the people on a limited scale and under strict regulation until after the "Manifesto" of Wilford Woodruff, president of the church, in October, 1890. The practice was then banned by church action, and violation of the interdict is punished by excommunication of the parties. The headquarters are in Salt Lake City, Utah. The "General Authorities" of the Church comprise the *First Presidency, Council of the Twelve Apostles, Presiding Patriarch, First Council of the Seventy*, and the *Presiding Bishopric.*

Church of Montenegro. See ORTHODOX CHURCH.

Church of Mount Sinai. See ORTHODOX CHURCH.

Church of Russia. See ORTHODOX CHURCH.

Church of Scotland. The national church of Scotland. See PRESBYTERIAN, *adj.* — **Church′-of-Scot′land**, *adj.*

Church of the Brethren. See DUNKER.

Church of the East. = EAST SYRIAN CHURCH.

Church of the Living God. A negro church organized in 1925, as successor to previous bodies of the same name, Baptist in doctrine but having an episcopal organization.

Church of the Mennonite Brethren in Christ. *Eccl.* A branch of the Mennonites formed about 1880.

Church of the Nazarene. A sect first organized in 1895 in Los Angeles, California, which stresses entire sanctification, baptism with the Holy Spirit, and divine healing.

Church of the New Jerusalem. See NEW JERUSALEM CHURCH, SWEDENBORGIAN.

Church of the United Brethren in Christ. See UNITED BRETHREN.

Church of Yugoslavia. See ORTHODOX CHURCH.

Church Orders. Various early collections of canons, liturgical forms, and instructions regarding church life. Such are the *Didache*, the *Apostolic canons* (or *Apostolic Church Order*), the *Egyptian Church Order*, the *Testament of our Lord*, and others. The *Apostolic Constitutions* is a compilation of such church orders.

church owl. = BARN OWL.

church papist. In England in the 17th century, a Roman Catholic who was a conformist to the Church of England.

church parade. **a** A military formation in which troops march to and from church services. **b** *Local, U.S.* A promenade of fashionable people attending church.

church pennant. A pennant flown on a ship during divine service. In the United States Navy it is a white pennant with a blue Latin cross and is the only flag or pennant flown above the ensign.

church rate. A rate upon the lands and houses in a parish, in England or Ireland, assessed on the occupiers, for the maintenance of the church and its services. Church rates were compulsory by law until abolished in 1868, but are now payable voluntarily or fixed at the request of the annual vestry meeting.

church′reeve′ (chûrch′rēv′), *n.* A churchwarden. *Obs.*

church register. *Eccl.* A parish register of baptisms, marriages, and deaths.

church ring. A wedding ring.

church school. 1. A school, providing a general education, conducted by or associated with a church; specif.: **a** Such a school supported by a particular church in contrast to one supported by the public authority or a nondenominational private school. **b** *Brit.* Such a school in which denominational religious teaching is also given and where certain rights are vested in a board of managers composed of church (sense 1 **b**) people, with the vicar of the parish as chairman; — called also *national school*, as owing its origin to the National Society.
2. An organization of officers, teachers, and pupils for purposes of moral and religious education under the supervision of a local church. Cf. SUNDAY SCHOOL.

church′scot′ (chûrch′skŏt′), **church′shot′** (-shŏt′), *n.* A tribute formerly collected by the clergy for their support or as a due, orig. one of corn collected on St. Martin's Day.

Church Slavic *or* **Slavonic.** The ecclesiastical and literary language which was formed, on the basis of a Bulgarian dialect, by Cyril in the 9th century, the oldest and most primitive of the recorded Slavic tongues, and still used in the liturgy of the Eastern Church. Called also *Old Bulgarian, Old Church Slavic* or *Slavonic, Old Slavic* or *Slavonic.* See CYRILLIC, SLAVIC, INDO-EUROPEAN LANGUAGES.

church′-sok′en, *n.* [See SOKEN.] A church district or its inhabitants. *Obs. exc. Hist.*

church text. The Old English or black-letter style of type as used in ecclesiastical work, as on stained-glass windows, on monuments, etc.; also, *Print.*, a tall, slender form of black letter, often used in ecclesiastical work.
☞ This line is in nonpareil church text.

church triumphant. 1. The church in heaven, enjoying a state of triumph, having overcome in her warfare with evil; — distinguished from *church militant.*
2. [*caps.*] A sect founded in Illinois about 1880 by George Jacob Schweinfurth, who claimed to be the "Christ of the Second Coming."
3. [*caps.*] A communistic sect founded by Cyrus Teed, aiming to re-establish church and state upon a basis of divine fellowship; — called also *Koreshan Ecclesia* or *Church*, and *Koreshanity*, Cyrus in Hebrew being Koresh.

church universal. The Christian Church viewed as a whole, irrespective of national or denominational boundaries; more narrowly, the church which is catholic (see CATHOLIC, 3); the entire body of Catholic believers.

church visible. *Theol.* The apparent church of Christ on earth; the whole body of professed Christians; — distinguished from, or opposed to, *church invisible.*

church′ward′ (chûrch′wôrd′), *n.* *Hist.* Custodian of a church (building); a man in orders in charge of a church. *Oxf. E. D.*

church′ward (chûrch′wẽrd), **church′wards** (-wẽrdz), *adj. & adv.* Toward the church.

church′ward′en (-wôr′d'n; 66), *n.* 1. *Ch. of Eng.* A lay honorary parish official whose duties include the protection of the church building and property, and the making and executing of various parochial regulations. It is an office of observation and complaint, though not of control, with respect to divine worship. The duties and responsibilities are now greatly reduced and vested jointly in the churchwardens and parochial church council.
2. *Prot. Epis. Ch.* A church officer whose duties, though they vary in the different dioceses, now relate chiefly to the oversight and management of the temporal affairs of the parish, such as the care of the parish property and the raising of money. There are usually two, the senior being the highest lay officer of the parish.
3. A clay tobacco pipe with a long stem. *Colloq., Eng.*

church′ward′en·ism (-ĭz'm), *n.* Rule of churchwardens; — with allusion to the damage done to church buildings by work done under the direction of ignorant churchwardens. *Oxf. E. D.* — **church′ward′en·ize** (-īz), *v. t.*

church′way′ (chûrch′wā′), *n.* The way or road to a church. — *adj.* Leading churchward. *Shak.*

church′wom′an (chûrch′wo͝om′ăn), *n.*; *pl.* -WOMEN (-wĭm′ĕn; -ĭn; 119). 1. A woman who is a member of the church, esp. of the Church of England or of the Protestant Episcopal Church. Cf. CHURCHMAN, 3.
2. Usually **church woman.** A woman who habitually attends church, esp. one active in church work.

church work. Work on, or in behalf of, a church; esp., work in furtherance of a church's purpose, as in charity, visitation of the sick, etc.; specif., the work of a particular church for the spread of religion. — **church worker.**

church writ. *Eng. Law.* An order or writ issued by an ecclesiastical court.

church′y (chûr′chĭ), *adj.*; CHURCH′I·ER (-chĭ·ẽr); CHURCH′I·EST. *Colloq.* **a** Relating to, or savoring highly of, the church; unduly fond of church forms. **b** Churchlike.

church′yard′ (chûrch′yärd′; 66), *n.* The yard or enclosure belonging to a church, part of which is often used as a burial ground; God's acre.

churchyard cross. = PALM CROSS **a**.

Church year. = CHRISTIAN YEAR **a**.

chu·rel′ (cho͞o·rāl′), *n.* [Hind. *curail.*] A goblin; specif., the ghost of a woman who has died while pregnant, and who haunts lonely places. *Kipling.*

chu·rin′ga (cho͞o·rĭng′gȧ), *n.* [Native word, prop., sacred.] *Anthropol.* In central Australia, a small tablet bearing rectilinear and curvilinear designs, kept in secret places, and believed to represent the soul of an individual.

churl (chûrl), *n.* [ME. *cheorl, cherl*, fr. AS. *ceorl* a freeman of the lowest rank, man, husband; akin to D. *kerel*, G. *kerl*, and ult. to the E. proper name *Charles* (orig., man, male); prob. orig., old man, and akin to E. CORN. Cf. CARL, CHARLES'S WAIN.] 1. *Obs.* **a** A male person; a man; husband. **b** A villein; serf; bondman.
2. In early England, a man without rank, or in the lowest rank of freemen below the earl and thane.
3. A rustic; a countryman; a peasant.
4. Villain; base fellow; in modern use, usually, a rough, surly, ill-bred fellow; a boor.
A *churl's* courtesy rarely comes, but either for gain or falsehood. *Sir P. Sidney.*
5. A selfish miser; an illiberal person; a niggard.
Like to some rich *churl* hoarding up his pelf. *Drayton.*

churl (chûrl), *adj.* Churlish; rough. *Rare.*

churled (chûrld), *adj.* Rendered churlish.

churl′ish (chûr′lĭsh), *adj.* [AS. *ceorlisc, cierlisc.*] 1. Of or pert. to a churl or churls; having the position or rank of a churl; hence, rustic; vulgar; mean. *Obs. exc. Hist.*
2. Like a churl or boor; rough; violent; cross-grained; ungracious; surly; also, illiberal; sordid; niggardly.
Half mankind maintain a *churlish* strife. *Cowper.*
3. Wanting pliancy; unmanageable; unyielding; not easily wrought; as, a *churlish* soil; the *churlish* and intractable nature of some minerals.
Syn. — Sullen, crabbed. See BOORISH.
Ant. — Affable. See CIVIL.
— **churl′ish·ly**, *adv.* — **churl′ish·ness**, *n.*

churl′y (chûr′lĭ), *adj.*; -I·ER (-lĭ·ẽr); -I·EST. Churlish; surly; violent.

churn (chûrn), *n.* [ME. *chirne, cherne*, fr. AS. *cyrin*; akin to D. *karn*, ON. *kirna*, and perh. to E. *kernel*; basic idea: cream (cf. G. dial. *kern* cream), the kernel of the milk, becoming granular in churning. See KERNEL; cf. KIRN.] 1. A vessel in which milk or cream is stirred, beaten, or otherwise agitated (as by a plunging or revolving dasher or by shaking) in order to separate the oily globules from the other parts and thus to obtain butter.
2. Any of various vessels or pieces of apparatus suggestive in form or action of a butter churn, as a fire drill, the block or chuck on a lathe for turning porcelain, etc.
3. Churning; agitated state, as of water.

Churn with plunging Dasher used in the 18th century.

churn (chûrn), *v.*; CHURNED (chûrnd); CHURN′ING. [ME. *chirnen, chernen.* See CHURN, *n.*] *Transitive:* 1. To stir, beat, or agitate (milk or cream) in a churn, in order to make butter; to make (butter) by churning.
2. To shake, stir, or agitate violently or continuously; to make, as foam, by thus doing.
Churned in his teeth, the foamy venom rose. *Addison.*
—, *Intransitive:* 1. To work a churn, as in making butter.
2. To produce, or be in, violent or continuous agitation; as the steamer's screw *churns*; the water *churns.*

churn′a·bil′i·ty (chûr′nȧ·bĭl′ĭ·tĭ), *n.* *Dairying.* **a** Ease of churning. **b** Completeness of formation of butter in churning.

churn′-butt′ed, *adj.* *Forestry.* Swell-butted.

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church·an′i·ty, *n.* = CHURCHIANITY.
church′dom, *n.* See -DOM.
church′ful, *n.* See -FUL.
church′grith′, *n.* See GRITH, 4 a.
church′i·ness, *n.* See -NESS.
church′ish, *adj.* See -ISH. *Rare.*
church′ism, *n.* See -ISM.
church′let, *n.* See -LET.
church mouse. See under POOR.
Church of Rome. = CATHOLIC CHURCH; — not an official title.
church′ship, *n.* See -SHIP. *Obs.*
churcht. Churched. *Ref. Sp.*
church′ward′en·ship, *n.* See -SHIP.
church′wise′, *adj. & adv.* See -WISE.
chur′ka (chŭr′kȧ), *n.* Var. of CHARKHA.
ohurke. † CHIRK.
churl′dom, *n.* See -DOM. *Obs.*
churl′hood, *n.* See -HOOD.
churm. Scot. & dial. var. of CHIRM.

Webster's New International Dictionary, *Second Edition*

A Composite Page of Terms in Fiction and Mythology

Mun·chau'sen, Baron (mŭn·chô'zĕn). The pretended author of a book of travels (by Rudolph Eric Raspe, 1785) filled with extravagant fictions. The name is corrupted from that of Baron Karl Friedrich Hieronymus von *Münchhausen* (müngk'hou'zĕn *or* müngk'hou'zĕn), a German officer in the Russian service (d. 1797). — **Mun·chau'sen·ism** (-ĭz'm), *n.* — **Mun·chau'sen·ize** (-īz), *v. i.*

Faer'ie Queene', The (fâr'ĭ kwēn'). An allegorical, narrative, and romantic poem in six books (1590–1596) by Edmund Spenser, based on the customs of chivalry and aiming to portray ideal knighthood. See GLORIANA; REDCROSS KNIGHT; GUYON; BRITOMARTIS, 2; CALIDORE.

faer'y (fâr'ĭ), *adj.* Also **faer'ie.** Of, pertaining to, or like, faërie or fairyland; fairy.

Its operas and its *faery* ballrooms. *G. Eliot.*

Doll's House, A. The title of a drama (1879) by Ibsen. Nora Helmer, a young wife and mother of narrow domestic training, blunders into forgery and other mischiefs, largely through family love, and leaves domesticity to seek education and emancipation.

Mal'a·prop, Mrs. (măl'ȧ·prŏp). [F. *mal à propos* inappropriate.] A character in Sheridan's *Rivals*, noted for her blunders in the use of words.

Cu·chul'ainn, Cu·chul'lin (kōō·kŭl'ĭn), *n.* The hero of the Ulster epic cycle, incarnation of the god Lug and later provided with mortal father (Sualtaim) and mother (King Conchobor's sister). He was supposed to have flourished in the 1st century of the Christian era. He defended his country single-handed against the invaders in the *Tain Bo Cuailnge*, wooed Emer, unwittingly slew his son, Conlaech, in a duel, and was himself finally slain in battle by druidism and magic. See TAIN, ULSTER CYCLE.

David Har'um (hâr'ŭm). The title and hero of a novel (1899) by Edward Noyes Westcott (1847–98). He is a shrewd horse-trading banker of a small town in New York.

Sa·kun'ta·la (sȧ·kŏŏn'tȧ·lä; shȧ-), **Sha·kun'ta·la** (shȧ-), *n.* [Skr. *Sakuntalā.*] The title and heroine of a famous Sanskrit drama by Kalidasa, translated into English by Sir William Jones (1789) and Sir Monier Monier-Williams (1853). Sakuntala, who has been married by a king, who met her while he was hunting in the forest, loses, while bathing in a pool, a ring which he has given her and by the sight of which he will remember her. It is found by a fisherman in a fish he has caught, and, when taken to the king, causes him to remember and go in search of Sakuntala, who has returned to the forest.

I Have a Rendezvous with Death. A poem of the World War, written in 1916 by Alan Seeger. See *Biog.*

San'cho Pan'za (săng'kō păn'zȧ; *Sp.* sän'chō pän'thä). The squire in Cervantes' *Don Quixote*. He is a short, potbellied peasant, ignorant and credulous, but shrewd and with a store of proverbial wisdom, thus being a foil to his master. See BARATARIA.

Sche·he'ra·za'de, Queen (shĕ·hā'rȧ·zä'dĕ; shē·hĕr'ȧ-). The fictitious relator of the stories of the *Arabian Nights*. See ARABIAN NIGHTS.

Bryn'hild (brün'hĭlt), *n.* [ON. *Brynhildr.* See BRUNHILD.] In the *Volsunga Saga*, a Valkyrie who, disobeying Odin, is condemned to become a mortal, though placed by him in an enchanted fortress whence only a hero can claim her. Sigurd wakes her from her enchanted sleep to a mutual falling in love, but afterwards, as a result of a magic drink, forgets her and marries Gudrun. He later wins Brynhild for his brother-in-law Gunnar. Brynhild, in grief at the betrayal of her love, procures the murder of Sigurd, but slays herself with the same sword and is burned on the same pyre. Cf. BRUNHILD, BRÜNNEHILDE.

John Bull (bŏŏl). **1. a** In Arbuthnot's satire *The History of John Bull* (1712), a character representing the English nation, with characteristics regarded as typical of the Englishman. **b** The English nation personified; the English people; also, the, or a, typical Englishman; an Englishman.

Bed'i·vere', Sir (bĕd'ĭ·vēr'). In Arthurian legend, a knight (Tennyson calls him the "first made and latest left of all the knights") of the Round Table. He was sent by the dying Arthur to throw the sword Excalibur into the lake, and witnessed the departure of Arthur for the vale of Avalon.

Main Street **a** In many American cities and towns, the name of the most important street. **b** The title of a novel (1920) by Sinclair Lewis portraying materialistic provincialism as a characteristic of American life in a small town. **c** Hence, any place or class of such character. — **Main'street'er** (mān' trēt'ẽr), *n.* — **Main'street'ism** (-ĭz'm), *n.*

Frank'en·stein (frăngk'ĕn·stīn), *n.* **1.** A young student of physiology in Mrs. Shelley's romance of the same name, who constructed a monster mainly out of materials obtained from the churchyard and the dissecting room, and gave it a sort of life. Rendered frantic by his unsatisfied human cravings, the monster committed atrocious crimes and inflicted the most dreadful retribution upon his creator. The name has become a synonym for one destroyed by his own works. Cf. GOLEM.
2. Hence, a work or agency that proves uncontrollable and ultimately ruins its originator.

Westward Ho (hō)! **1.** A historical romance (1855) by Charles Kingsley, of adventure at sea and in South America in the Elizabethan era. Drake, Raleigh, and Hawkins appear as characters. See LEIGH, SIR AMYAS.
2. Hence, in adverbial use, into the West; toward the western country, sea, etc.

Fiction and Mythology

This composite page gives examples of terms in Fiction and Mythology, which form a part of the general vocabulary. The field covered is as wide as literature itself.

Classical mythology has been fully and clearly covered. In addition, terms connected with the myths and legends of other peoples than the Greek and Roman, such as the Norse, Hindu, Persian, Oriental, and American Indian, are treated with equal care and thoroughness.

In literature, the names of the characters in Shakespeare's plays are entered, and leading characters in Dickens, Scott, Thackeray, and others among the great novelists. Literary movements, groups, and doctrines of importance are included and carefully defined, as *realism, naturalism, romanticism, stream-of-consciousness, novel, Bloomsbury group, Pleiad, Cavalier Poets, Hartford wits,* and *unanimism.*

Kim (kĭm), *n.* The title and hero of a novel (1901) of life in India, by Rudyard Kipling. Kim is the nickname of an Irish waif, Kimball O'Hara, who has grown to boyhood in the native quarter of Lahore. He wanders over India with a Tibetan priest and eventually finds the regiment to which his father had belonged.

Rob'in Good'fel'low (rŏb'ĭn gŏŏd'fĕl'ō). A tricksy house sprite in the popular fairy mythology of England; — styled also *Puck*, or *Hobgoblin*. See PUCK, 1 b.

Cid (sĭd; *Sp.* thēth; 103; 112), *n.* [Sp., fr. Ar. *sayyid* lord.] Chief or commander; in Spanish literature, a title of Ruy, or Rodrigo, Díaz de Bivar, a champion of Christianity in the 11th century; — called also **El Cid Campeador.** See *Biog.* The Cid whose exploits were celebrated in the Castilian epic *Poema del Cid*, of unknown authorship, written about 1140, differs greatly from the historical figure, but it is the Cid of the poem who became the ideal Spanish hero. In *Le Cid* (lẽ sēd') (1636), Pierre Corneille dramatized the material.

Connecticut Yankee in King Arthur's Court, A. A story (1889) by Mark Twain (S. L. Clemens) contrasting medieval and modern civilizations by means of a satire on King Arthur's Court.

An·to'ni·o (ăn·tō'nĭ·ō; -nyō), *n.* **a** The merchant in Shakespeare's *Merchant of Venice*, who pledged a pound of his flesh to Shylock for a loan for Bassanio. **b** In *The Tempest*, the usurping duke, brother to Prospero. **c** In *Twelfth Night*, the sea captain, friend to Sebastian.

E·van'ge·line (ē·văn'jĕ·lēn; -līn; -lĭn), *n.* [F. *Evangeline*, fr. Gr. *euangelos* bringing good news. See EVANGEL.] **2.** (*pron.* -lēn) The title and heroine of a poem (1847) by Longfellow. She is separated from her lover, Gabriel, at the time of the expulsion of the Acadians (see ACADIA).

Scrooge, Ebenezer (skrōōj). In Dickens's *Christmas Carol*, an exceedingly hard, avaricious man represented as visited by spirits on Christmas Eve and made kindly by what they show him of human life.

Friar Tuck (tŭk). A fat and jovial friar, a constant associate of Robin Hood, to whom he acted as father confessor.

Be'a·trice (bē'ȧ·trĭs), *n.* [L. *beatrix* she that makes happy, fr. *beare* to make happy.] **1.** Literally, she that makes happy; — a feminine proper name. L. *Beatrix* (bē·ā'trĭks); F. *Béatrice* (bā'ȧ'trēs'), *Béatrix* (-trēs'); It. *Beatrice* (bā'ä·trē'chā); Sp. & Pg. *Beatriz* (*Sp.* bā'ä·trēth'; *Pg.* -trēsh'); G. *Beatrice* (bā'ä·trē'chĕ; -sĕ). — Dim. *Bee, Trixy.*
2. (bē'ȧ·trĭs; *It.* bā'ä·trē'chā) A Florentine lady of the noble family of Portinari, immortalized by Dante. The theme of his *Vita Nuova* (New Life) is his idealized love for her, beginning at nine years of age. After her early death in 1290, as the wife of Simone de' Bardi, Dante's love for her assumed a spiritual and mystical form, and he makes her the central figure of his *Divine Comedy*, in which she symbolizes divine knowledge, or theology. It is she who sends Vergil to guide Dante through Hell and Purgatory, and who herself conducts him through Paradise.
3 In Shakespeare's *Much Ado About Nothing*, a witty young lady who rails at love, but by a trick is made to fall in love with Benedick. See BENEDICK.

The'seus (thē'sūs; thē'sē·ŭs), *n.* [L., fr. Gr. *Thēseus.*] *Gr. Myth.* The chief Attic hero, son of Aegeus, king of Athens. He rid Attica and the Isthmian region of Procrustes and other evildoers; slew the Minotaur, and carried off Minos's daughter Ariadne (see ARIADNE); conquered the Amazons, and married their queen, variously given as Antiope and Hippolyte; and after her death espoused Phaedra. He was one of the Argonauts, and took part in the Calydonian boar hunt. (See HIPPOLYTUS, PIRITHOÜS.) He figures in Chaucer's *Knight's Tale* and Shakespeare's *Midsummer Night's Dream.*—**The·se'an** (thē·sē'ăn), *adj.*

fêng'–huang', fêng'–hwang' (fŭng'hwäng'), *n.* [Chin. (Pek.) *feng*⁴-*huang*²; *feng* is the male bird, *huang* the female.] *Chinese Myth.* A bird of rich plumage and graceful form and movement, fabled to appear in times of peace and prosperity, and often represented in art, sometimes in pheasantlike form. Cf. PHOENIX.

Fêng-huang.

Yi'ma (yē'mȧ), *n.* [Av. Cf. YAMA.] *Persian Myth.* An Avestan hero or demigod, king of mankind in the golden age, afterwards ruler of the realm of the dead. *Yima* corresponds to the Vedic *Yama.*

Ler (lâr), *n.* [MIr. *ler*, Ir. *lear*, W. *llyr*, the sea.] *Celt. Myth.* The Irish and Brythonic god of the sea; the Celtic Neptune. In the legendary history of Britian he appears as a king, called *Leir*. He was popularized by Geoffrey of Monmouth and is thus the original of the "King Lear" of the early chronicles and of Shakespeare's tragedy. See CHILDREN OF LER, KING LEAR, LLYR.

win'di·go (wĭn'dĭ·gō), *n.* [Ojibway.] In the mythology of the northern Algonquians, an evil spirit; a devil; one of a fabulous tribe of cannibals.

As'vins (ăs'vĭnz; ăsh'-), *n. pl.* [Skr. *Aśvin*, n. sing.] *Vedic Myth.* Two gods of the dawn, twin brothers, young and beautiful. They are the physicians of heaven and benefactors of mankind. Cf. DIOSCURI.

A·ra'lu (ä·rä'lōō), *n.* [Assyr.-Bab. *Arallū.*] *Bab. Myth.* The abode of the dead, situated across the river Khubur (which see) and pictured as a vast and gloomy cavern in the midst of the earth, surrounded with seven walls, and ruled over by Nergal and his sullen and stern consort Allatu with their attendant demons. Here the dead led a feeble existence with no hope of return to a brighter life.

Ygg'dra·sill (ĭg'drȧ·sĭl; üg'-), *n.* [ON.] *Norse Myth.* The great ash tree symbolizing the universe. Yggdrasill means the horse of Yggr, that is, Odin. The ash extends over all the world; one root is in Niflheim, one in Jotunnheim, and one in Asgard. At the root in Niflheim is the well Hvergelmir; there lie the dragon *Nithhogg* (or Nithhögr) and other serpents gnawing at the root. At the root in Jotunnheim is the well of Mimir, the source of wisdom. By the third root is the Urtharbrunn from whose waters the Norns sprinkle the tree daily to preserve it from decay. In the branches sit an eagle and a hawk; on its foliage feed four harts; and up and down its trunk runs the squirrel ***Ratatosk*** (or ***Ratatoskr***) carrying strife.

wooden horse. **a** Also **Trojan horse, the.** In Vergil's *Aeneid*, the colossal hollow figure of a horse, in which a number of Greek warriors were hidden, introduced within the walls of Troy by a stratagem. At night the warriors came out and admitted the Greek army into the city, which was sacked and burned.

jann (jän), *n.* [Ar. *jānn.*] *Moham. Myth.* **a** The lowest or least powerful of supernatural beings, or genii, or one of this order. **b** The genii, or jinn, or one of them. **c** [*cap.*] Eblis, the father of the genii, or jinn.

Scyl'la (sĭl'ȧ), *n.* [L., fr. Gr. *Skylla.*]
2. *Gr. & Rom. Myth.* **a** A female monster of partly human form, with the heads of fierce dogs growing about her waist, who was a menace to seafarers. In the classical period Scylla was localized as inhabiting the rock in the strait of Messina. In Greek legend, Jason's ship, the Argo, whose helmsman was Glaucus, passed Scylla. Cf. CHARYBDIS. Hence, ***between Scylla and Charybdis***, between two dangers, either of which is difficult to avoid without encountering the other. **b** A daughter of Nisus, king of Megara. She fell in love with Minos, who was besieging the town, and to give him the victory cut from her father's head a golden or purple lock on which his life depended. Minos, repelled by the act, drowned her. According to some versions of the myth she was transformed into a sea bird.

Lil'ith (lĭl'ĭth; lī'lĭth), *n.* [Heb. *Līlīth*, fr. Assyr.-Bab. *Lilītu*, a female demon, lit., belonging to the night.] *Semitic Myth.* A female evil spirit roaming desolate places, traditionally regarded as a night demon, attacking children. In Jewish and medieval popular belief she was held to have been the first wife of Adam. In the demonology of the Middle Ages Lilith was a famous witch, and she is introduced as such in the Walpurgis-night scene in Goethe's *Faust.*

dhar'ma (där'mȧ; *Skr.* dŭr'mȧ), *n.* [Skr., law. See FIRM.] *Hinduism & Buddhism.*
4. [*cap.*] In Hindu mythology, an ancient sage whose numerous progeny are personifications of virtues and religious rites. Dharma is worshiped as a supreme god by some of the lower castes of Bengal, this worship being a possible survival of Buddhism.

Bi'sha'mon (bē'shä'mōn), *n.* [Jap., fr. Skr. *Vaiśravaṇa.*] The Hindu Vaisravana, the guardian of the north; later, in Japanese popular belief, a giver of wealth, as one of the Seven Gods of Happiness. He holds a spear in the right hand and a small shrine in the left.

Ol'i·ver's bark (ŏl'ĭ·vẽrz). *Pharm.* The dried bark of a tree (*Cinnamomum oliveri*) of New South Wales and Queensland, used as a substitute for cinnamon.
ol'i·ver·smith' (ŏl'ĭ·vẽr·smĭth'), *n.* An oliverman.
Oliver Twist. The title and hero of a novel (1838–39) by Dickens. He is a poor boy, born and brought up in the workhouse of an English village, starved, beaten, and abused, but remaining honest under the worst influences. See FAGIN.
olive scab. *Plant Pathol.* A disease of the olive, caused by the fungus *Cycloconium oleaginum* and characterized by blotches on the leaves and peduncles.
olive scale. **a** A small, round scale insect (*Aspidiotus camelliae*) infesting the olive in California. **b** The black scale.
ol'i·ves'cent (ŏl'ĭ·vĕs'ĕnt; -'nt), *adj.* [*olive* + *-escent.*] Approaching olive color.
olive shell. Any of numerous marine univalve mollusks of the genus *Oliva* or the family Olividae. They have an elongate, smooth, highly polished shell with a very short spire, a narrow mouth, notched in front, and a plicate columella. The foot is large, and the mantle envelops the shell. They live mostly along sandy tropical coasts.

Olive Shell (*Oliva porphyria*). (⅓)

ol'ive-sid'ed fly'catch'er. A medium-sized flycatcher (*Nuttallornis mesoleucus*) of eastern North America.
ol'i·vet (ŏl'ĭ·vĕt), *n.* [L. *olivetum.*] An olive yard; an olive grove or orchard. *Obs.*, except as a proper name of the Mount of Olives. *Acts* i. 12.
ol'i·vet (ŏl'ĭ·vĕt), *n.* [F. *olivette.*] **1.** = OLIVE, 6.
2. An imitation pearl, esp. one made for traffic with savages.
Ol'i·ve'tan (ŏl'ĭ·vē'tăn; ŏl'ĭ·vĕt'ăn), *n.* *Eccl. Hist.* A member of a monastic order, established in 1319 by John (St. Bernard) Tolomei, who sought to revive the primitive austerity of the Benedictine rule; — from its first monastery, Our Lady of Monte Oliveto, near Accona, Italy.
ol'ive–tree' ag'a·ric. A red, luminescent mushroom (*Pleurotus phosphoreus*) of Europe.
olive tubercle. = OLIVE KNOT.
ol'ive·wood' (ŏl'ĭv·wo͝od'), *n.* **a** The wood of the olive. **b** The wood of the olive plum, or the tree itself.
olive wood. A brown, yellowish red-yellow in hue, of low saturation and low brilliance. Cf. COLOR.
olive yellow. **a** A Chartreuse green. **b** Old moss green.
O·liv'i·a (ō·lĭv'ĭ·ȧ; 159), *n.* [Cf. It. *Olivia*, OF. *Olive*, and L. *oliva* olive. See OLIVE.] **1.** Literally, an olive; — fem. proper name. L. *Olivia* (ō·lĭv'ĭ·ȧ); It. & G. *Olivia* (ō·lē'vyä).
2. **a** A countess in Shakespeare's *Twelfth Night,* who rejects the suit of Duke Orsino, falls in love with Viola disguised as a page, and marries Viola's twin brother, Sebastian. **b** The Vicar's elder daughter in Goldsmith's *Vicar of Wakefield.* She elopes with the vicious Squire Thornhill.
ol'i·vif'er·ous (ŏl'ĭ·vĭf'ẽr·ŭs), *adj.* [L. *olivifer.*] Producing olives.
o·liv'i·form (ō·lĭv'ĭ·fôrm), *adj.* Shaped like an olive or an olive shell.
ol'i·vil (ŏl'ĭ·vĭl), *n.* Also **ol'i·vile** (-vĭl; -vēl), **o·liv'i·lin** (ō·lĭv'ĭ·lĭn). [F. *olivile.*] *Chem.* A white crystalline neutral compound, $C_{20}H_{24}O_7$, obtained from the gum of the olive tree.
ol'iv·ine (ŏl'ĭ·vēn; ŏl'ĭ·vēn'; ŏl'ĭ·vĭn), *n.* [*olive* + *-ine;* cf. F. *olivine.*] **1.** **a** *Mineral.* Chrysolite, a semiprecious stone. See CHRYSOLITE. **b** Demantoid (see GARNET, 1); — a designation used by some jewelers.
2. A color, yellow-green in hue, of low saturation and high brilliance. Cf. COLOR.
ol'i·vine–an'des·ite, *n.* An extrusive igneous rock of olivine phenocrysts in a groundmass of acid plagioclase.
ol'i·vine–ba'salt, *n.* *Petrog.* A basalt which carries olivine as an essential constituent.
ol'i·vine·fels' (-fĕls'), *n.* [*olivine* + G. *fels* rock.] *Mineral.* A peridotite formed essentially of olivine, often with a small amount of chromite, actinolite, mica, etc.
ol'i·vin'ic (ŏl'ĭ·vĭn'ĭk), **ol'i·vi·nit'ic** (-vĭ·nĭt'ĭk), *adj.* Pertaining to, resembling, or containing, olivine.
ol'i·vin·ite (ŏl'ĭ·vĭn·īt), *n.* [*olivine* + *-ite.*] *Petrog.* A variety of periodotite composed of olivine, augite, hornblende, and occasionally a little basic plagioclase.
ol'la (ŏl'ȧ), *n.; pl.* OLLAE (-ē). [L. See OLIO.] *Rom. Archaeol.* A jar or pot, of any kind.
ol'la (ŏl'ȧ; *Sp.* ōl'yä; 170), *n.; pl.* OLLAS (ŏl'ȧz; *Sp.* ōl'yäs). [Sp. See OLIO.] **1.** In Spain, Spanish America, etc., a round or bulging pot or jar, as of baked clay, having a wide mouth. It is used in cooking, in cooling water by evaporation, etc.
2. Hence, a dish of meat and vegetables cooked in a pot of this kind, and, usually, highly seasoned and minced; an olio; an olla-podrida.
ol'la (ŏl'ȧ), *n.* [Malayalam *ōla.*] A leaf of the palmyra palm, used in India for writing; hence, a document written on such a leaf.
ol'lamh (ŏl'ȧv), **ol'lav** (ŏl'ȧv), *n.* [Ir. *ollamh*, MIr. *ollam.*] *Irish Antiq.* One who has attained the highest degree in an art or science; especially, one learned in law, history, genealogy, and poetry.
ol'la–po·dri'da (ŏl'ȧ·pō·drē'dȧ), *n.* [Sp., lit., a rotten pot. See OLIO; PUTRID.] **1.** = 2d OLLA, 2.
2. Any incongruous mixture or miscellaneous collection; an olio; a hodgepodge; a medley.
ol'len·ite (ŏl'ĕn·īt), *n.* [From Col d'*Ollen*, Piedmont, Italy.] *Petrog.* A schist composed of quartz, hornblende, epidote, titanite, rutile, and, occasionally, garnets.
ol'lock (ŏl'ŭk), **ol'luck**, *n.* [Malayalam *āṛakku*, or Tamil *āṛākku.*] See MEASURE, *Table.*
Ol'ney·a (ŏl'nĭ·ȧ), *n.* [NL., after Stephen *Olney*, Am. botanist.] *Bot.* A genus of trees (family Fabaceae) having as its only known species *O. tesota*, the Sonora ironwood, a native of southern California, Arizona, and Mexico. It is a small tree with pinnate leaves, and flowers in racemes.
ol'o·gy (ŏl'ō·jĭ), *n.; pl.* -GIES (-jĭz). [See -LOGY.] A science or branch of knowledge. *Chiefly Humorous.*
Geology, mineralogy, and all other *ologies* whatsoever. *De Quincey.*
— **o·log'i·cal** (ō·lŏj'ĭ·kăl), **ol'o·gis'tic** (ŏl'ō·jĭs'tĭk), *adj.* — **ol'o·gist** (ŏl'ō·jĭst), *n.*
-ol'o·gy. = -LOGY. See -O.
o'lo·ma'o (ō'lō·mä'ō), *n.* [Hawaiian.] A Hawaiian thrush (*Phaeornis lanaiensis*).
o'lo·na' (ō'lō·nä'), *n.* [Hawaiian.] A Hawaiian shrub (*Touchardia latifolia*), family Urticaceae, or its strong bark fiber, used for making fish nets and ropes resistant to sea water; also, a cord made from the fiber.
O·lo'nets (ō·lō'nyĕts), *n.* Also **O'lo·net'si·an** (ō'lō·nĕt'sĭ·ăn), **Ol'o·net'sish** (-sĭsh). A Finnish dialect spoken east of Lake Ladoga.
O'lor (ō'lôr), *n.* [L., swan.] **1.** *Zool.* A genus of swans with no frontal knob, including the whistling and trumpeter swans; — syn. of CYGNUS.
2. *Astron.* Cygnus; — an occasional name.
o'lo·ro'so (ō'lō·rō'sō), *n.* [Sp., fragrant.] A fragrant variety of full-bodied sherry.
ol'pe (ŏl'pē), *n.; L. pl.* -PAE (-pē). [NL., fr. Gr. *olpē.*] *Gr. Archaeol.* **a** A leather flask or vessel for oils or liquids. **b** A wine pitcher, resembling the oenochoë, but more cylindrical in body.
Ol·pid'i·as'ter (ŏl·pĭd'ĭ·ăs'tẽr), *n.* [NL. See OLPIDIUM; -ASTER.] *Bot.* A genus of pond-scum parasites. *O. radicis* causes a root disease of flax and other plants. See CHYTRIDIALES.
Ol·pid'i·um (ŏl·pĭd'ĭ·ŭm), *n.* [NL., fr. Gr. *olpis* leather flask.] *Bot.* A genus of pond-scum parasites. *O. brassicae* causes a seedling disease of cabbages. See CHYTRIDIALES.
ol'tra- (ŏl'trȧ-). For words formerly spelled *oltra-*, see ULTRA-.
ol'y·cook', o'ly·koek' (ŏl'ĭ·ko͝ok'), *n.* [D. *oliekoek*, lit., oil cake.] A kind of doughnut or cruller. *Local, U.S.*
O·lym'pi·a (ō·lĭm'pĭ·ȧ; 159), *n.* [L., fr. Gr. *Olympia*, prop. fem. of *Olympios* Olympian, of Olympus.] Literally, heavenly; — fem. proper name. L. *Olympia;* F. *Olympe* (ō'lăNp'); It. *Olimpia* (ō·lēm'pyä); G. *Olympie* (ō·lĭm'pĭ·ē).
O·lym'pi·a, *n.* See SHIP, *Table.*
O·lym'pi·ad (ō·lĭm'pĭ·ăd), *n.* [F. *olympiade*, fr. L. *Olympias, -adis*, fr. Gr. *Olympias, -ados*, fr. *Olympos* Olympus, a mountain in Macedonia near the border of Thessaly.] **1.** *Gr. Antiq.* A period of four (or, in the inclusive reckoning of the Greeks, five) years from one Olympian festival to the next, by which the ancient Greeks reckoned time. See OLYMPIAN, *adj.*, 3; ERA, *n.*, *Table.*
2. **a** The quadrennial celebration of the modern Olympic games. **b** Erroneously, the Olympian games or Olympic games.
— **O·lym'pi·ad'ic** (-ăd'ĭk), *adj.*
O·lym'pi·an (ō·lĭm'pĭ·ăn), *adj.* [LL. *Olympianus, Olympius*, fr. Gr. *Olympios*, fr. *Olympos.* See OLYMPIAD.] **1.** Of, pertaining to, or dwelling on, Olympus, a mountain in Macedonia (see OLYMPUS); as, the *Olympian* gods.
2. Hence, befitting or characteristic of Olympus or the Olympian gods; heavenly; celestial; also, resembling the gods, as in power or dignity; godlike; awe-inspiring; as, *Olympian* dignitaries. "*Olympian* speed." *Edith Wharton.*
3. Of or pertaining to Olympia in ancient Elis, in the western part of the Peloponnesus. **The Olympian games** formed the most notable of the four great Panhellenic festivals (the others being the Isthmian, Nemean, and Pythian). The festival was held every fourth year, in the first month after the summer solstice. They claimed a continuous celebration from the year 776 B.C., and this date came to be adopted by the Greeks as the primary date of their chronology, which was reckoned in Olympiads (see OLYMPIAD, 1). A general peace was maintained throughout the festival, and for a week before it began and after it ended. The games were of the usual type (see AGONA), the prize of the victor consisting of a crown of wild olive, a palm branch, and the right to erect a statue in the Altis, or central enclosure of the sacred precincts. Zeus was the chief deity to whom the festival was devoted. A modified revival (always called *Olympic games*), of the ancient Olympian games, consisting of international athletic games, races, etc., is now held once in four years, the first having been at Athens in 1896.
O·lym'pi·an, *n.* **1.** An inhabitant of Olympus; esp., *Gr. Relig.*, one of the deities supposed to dwell upon Olympus, forming a circle of gods of the highest rank under the direct oversight of Zeus. As generally constituted, the Olympians formed a group of twelve, though the same deities were not always chosen to make up this group. Besides Zeus, the Olympian gods included Apollo, Ares, Hermes, Hephaestus, and Poseidon, generally also Dionysus, and sometimes Hercules. The goddesses were Aphrodite, Artemis, Athena, Demeter, and Hera, and sometimes Hestia. The Olympians were sharply distinguished from the Chthonian gods. Their color was white; their temples faced the east; sacrifices to them were shared by their worshipers in a sacrificial meal, or sacrament. The color preferred by the Chthonian gods was black or blood color, their temples faced westward, and their rites were often held at night and the sacrifices were burnt whole. The distinction, however, was modified by the fact that many Olympians possessed Chthonian forms or attributes under which they were worshiped.
2. Hence, an Olympian person. *Chiefly Humorous.*
3. A native or inhabitant of Olympia; a participator in the Olympian games or, now, in the Olympic games.
Olympian blue. The color matelot.
Olympian green. The color malachite green.
O·lym'pi·an·ism (ō·lĭm'pĭ·ăn·ĭz'm), *n.* Worship of the Olympian gods, esp. as a dominant cult or religion.
O·lym'pi·an·ize (-īz), *v. t. & i.* To convert into an Olympian; to act the part of an Olympian.
Olympian religion, The. = OLYMPIANISM.
Olympian Zeus. *Gr. Antiq.* A statue by Phidias, in the temple of Zeus at Olympia, representing Zeus seated on a throne, holding his scepter in his left hand, and a figure of Nike (Victory) in his right.
O·lym'pic (ō·lĭm'pĭk), *adj.* [L. *Olympicus*, fr. Gr. *Olympikos;* cf. F. *olympique.*] Olympian (in all senses). — **O·lym'pic·ly,** *adv.* — **O·lym'pic·ness,** *n.*
O·lym'pic, *n.* An Olympic game or an Olympian game (see OLYMPIAN, *adj.*, 3); — usually in *pl.*
Olympic blue. The color cobalt blue.
Olympic Era, *or* **Era of the Olympiads.** See ERA, *Table.*
Olympic games. See OLYMPIAN, *adj.*, 3.
O·lym'pi·ei'on (ō·lĭm'pĭ·ī'ŏn), **O·lym'pi·e'ium** (-ē'yŭm), **O·lym'pi·e'um** (-ŭm), **O·lym'pi·um** (-lĭm'pĭ·ŭm), *n.* [L. *Olympium*, fr. Gr. *Olympieion.*] A temple of the Olympian Zeus or (chiefly in the form *Olympium*) of the Olympian Jove; esp., the great temple at Athens, on the plain southeast of the Acropolis, begun about 540 B.C. and finished between A.D. 117 and A.D. 138.
O·lym'pi·on'ic (-pĭ·ŏn'ĭk), *n.* [Gr. *Olympionikēs* a conqueror in the Olympian games; also adj.] An ode in honor of a victor in the Olympian games.
O·lym'pus (ō·lĭm'pŭs), *n.* [L., fr. Gr. *Olympos.*] **1.** A mountain in Macedonia believed by the ancient Greeks to be the abode of the Olympian gods. See OLYMPIAN, *n.*, 1; cf. ASGARD.
2. Hence: **a** Any similar abode or circle of gods or godlike beings. **b** Heaven; the sky.
O·lyn'thi·ac (ō·lĭn'thĭ·ăk), *adj.* [Gr. *Olynthiakos*, fr. *Olynthos* Olynthus.] Of or pert. to the ancient Greek city of Olynthus on the coast of Macedonia, destroyed by Philip of Macedon 348 B.C. — *n.* Any of the Olynthiac orations.
Olynthiac orations. Three orations delivered (349 B.C.) by Demosthenes to urge the Athenians to send aid to Olynthus when it was attacked by Philip of Macedon.
O·lyn'thi·an (ō·lĭn'thĭ·ăn), *adj.* Olynthiac. — *n.* A native or inhabitant of Olynthus.
O·lyn'thus (ō·lĭn'thŭs), *n.* [NL., fr. Gr. *olynthos* fig.] *Zool.* A stage in the development of all calcareous sponges during which the young sponge is vaselike in shape with a simple unfolded body wall; an ascon. See ASCON, *Illust.* It is regarded as the hypothetical ancestral type from which all sponges have been developed. *Haeckel.*
om (ōm), *interj.* [Skr.] *Hinduism, etc.* Orig., a syllable denoting assent; later, a mantra representing the triple constitution of the cosmos. The three component parts ($a + u + m$) of the sound are the Absolute, the Relative, and the relation between them.
om-. = OMO-, as in: **o·mag'ra, o·mal'gi·a, o'mar·thri'tis.**
-o'ma (-ō'mȧ); *pl.* -OMATA (-ō'mȧ·tȧ), -OMAS (-ō'mȧz). [Gr. *-ōma, -ōmatos.*] A suffix used: **a** In medical terms to denote a *morbid affection* of some part, usually some kind of tumor, as in fibr*oma*, sarc*oma*. Derivative adjectives are formed in **-om'a·tous** (-ŏm'ȧ·tŭs; -ō'mȧ·tŭs). **b** = -OME.
om'a·dhaun', om'a·dawn' (ŏm'ȧ·thôn'), *n.* [Ir. *amadān.*] *Anglo-Ir.* A fool; simpleton; idiot; — often as a term of abuse.
O·ma'gua (ō·mä'gwä; -wä; 142), *n.* An Indian of an important Tupian tribe, of Brazil and Peru.
O'ma·ha (ō'mȧ·hô), *n.; pl.* -HAS (-hôz). [Omaha, lit., those going up stream.] An Indian of a Siouan tribe, now gathered on a reservation in Nebraska, holding lands in severalty.
O·man' (ō·män'), *adj.* Also **O·ma'ni** (ō·mä'nĭ). Of or pertaining to the State of Oman in Arabia.
o·man'der wood (ō·măn'dẽr). [Origin uncert.] A variety of ebony found in Ceylon.
O·ma'ni (ō·mä'nĭ), *n.; pl.* OMANIS (-nĭz). A native or inhabitant of Oman.
o·ma'o (ō·mä'ō), *n.* [Hawaiian.] A thrush (*Phaeornis obscura*) of the island of Hawaii.
o'ma·si'tis (ō'mȧ·sī'tĭs), *n.* [NL. See OMASUM; -ITIS.] *Veter.* Inflammation of the omasum.
o·ma'sum (ō·mā'sŭm), *n.; pl.* OMASA (-sȧ). [L., bullock's tripe.] *Zool.* The third division, or that between the reticulum and the abomasum, in the stomach of ruminants; the psalterium. See RUMINANT, *Illust.*
-o'ma·to'sis (-ō'mȧ·tō'sĭs). [NL.] *Med.* A suffix *-omata* (see -OMA) + *-osis*, denoting the *condition* or *disease* resulting from an affection denoted by a corresponding noun in *-oma*, as in sarc*omatosis*.
ombe-. For words formerly spelled *ombe-*, see UMBE-.
om'ber, om'bre (ŏm'bẽr), *n.* [See UMBER the fish.] **a** A large Mediterranean food fish (*Umbrina cirrosa*) of the family Sciaenidae. **b** The umbrette.
om'ber, om'bre (ŏm'bẽr), *n.* [F. *ombre, hombre*, fr. Sp. *hombre*, lit., a man, fr. L. *homo.* See HUMAN.] *Card Games.* **a** A game of Spanish origin, very popular in the 17th and 18th centuries. It is played by three persons, usually, and with a Spanish pack. **b** In the game of omber, the player who attempts to win the pool.
om'ber. Dial. var. of UMBER.
‖om'bré' (ôN'brā'), *adj.* [F.] Shaded; specif., dyed or woven to give a shaded or graduated color effect. — *n.* An ombré fabric.
‖om'bré' che·va·lier' (ôN'brā' sh'·vȧ'lyā'). [F.] = SAIBLING **a.**
‖om'brés' chi'noises' (ôN'brā' shē'nwȧz'). [F.] Literally, Chinese shadows: a dramatic exhibition in which shadows of puppets or persons, etc., are thrown upon a transparent screen, and made to act a play, etc.
om·brette' (ŏm·brĕt'), *n.* [F.] The umbrette.
om'bri·fuge (ŏm'brĭ·fūj), *n.* [Gr. *ombros* shower + *-fuge* as in re*fuge*.] A refuge or protection from rain. *Rare.*
om'bro- (ŏm'brō-). [Gr. *ombros* rain; akin to Skr. *ambhas* water, and to Gr. *aphros* foam. See IMBRICATE.] A combining form, Greek *ombro-*, from *ombros*, meaning *rain*, as in *ombro*graph.
om'bro·graph (-grȧf; 83), *n.* [*ombro-* + *-graph.*] *Meteorol.* A self-registering rain gauge.
om·brol'o·gy (ŏm·brŏl'ō·jĭ), *n.* [*ombro-* + *-logy.*] That branch of meteorology which deals with rain. *Rare.* — **om'bro·log'i·cal** (ŏm'brō·lŏj'ĭ·kăl), *adj.* *Rare.*
om·brom'e·ter (ŏm·brŏm'ē·tẽr), *n.* [*ombro-* + *-meter.*] *Meteorol.* A rain gauge. See RAIN GAUGE, *Illust.*
om'bro·phile (ŏm'brō·fĭl; -fīl), **om'bro·phil** (-fĭl), *n.* *Biogeog.* An ombrophilous plant.
om'bro·phil'ic (-fĭl'ĭk), *adj.* Ombrophilous.
om·broph'i·lous (ŏm·brŏf'ĭ·lŭs), *adj.* [*ombro-* + *-philous.*] *Biogeog.* Capable of withstanding much rain, as the plants of humid tropical regions. — **om·broph'i·ly** (-lĭ), *n.*
om'bro·phobe (ŏm'brō·fōb), *n.* An ombrophobous plant.
om·broph'o·bous (ŏm·brŏf'ō·bŭs), *adj.* [*ombro-* + Gr. *phobos* fear.] *Biogeog.* Incapable of withstanding long-continued rain, as most desert plants. — **om·broph'o·by** (-bĭ), *n.*
om'bro·phyte (ŏm'brō·fīt), *n.* See -PHYTE.
-ome (-ōm). [See -OMA.] *Bot.* A combining form, Greek *-ōma* [see RHIZOME], denoting *group, mass, stem, abstract entity*, as in caul*ome*, mest*ome*, phyll*ome;* also, short for *mestome*, as in hadr*ome*.
o·me'ga (ō·mē'gȧ; ō'mĕ·gȧ; ō·mĕg'ȧ; 277), *n.* [Gr. *ō mega.*] **1.** Literally, the great, or long *o;* the last letter (Ω, ω) of the Greek alphabet. See ALPHA.
2. The last; that which is final; the end.
3. **a** An instance of the letter Ω, ω, written, printed, etc. **b** As a numeral, 800. Cf. GREEK NUMERAL.
4. Used variously, often in the form ω or Ω, for classifying, as: **a** *Astron.* [*cap.*] To designate some star of a constellation, usually the twenty-fourth in brightness; as, *Omega* (ω) Herculis. **b** *Chem.* As a prefix, to denote that an atom or group is united with the end carbon atom in a chain, as in ω-chloro-styrene, $C_6H_5CH{:}CHCl$.
o·me'ga-. *Chem.* = OMEGA, 4 b. — **o·me'ga,** *adj.*
Omega Nebula. *Astron.* A nebula of the general shape of the Greek capital letter omega, No. 17 in Messier's catalogue. It is situated on the border of Scutum Sobieskii.

Oliver Martext, Sir. See MARTEXT, SIR OLIVER.
ol'i·vette. Var. of 2d OLIVET, 1, = 1st OLIVE, 6.
Ol'i·vette' (ŏl'ĭ·vĕt'), *n.* Dim. of OLIVIA.
O·liv'i·dae (ō·lĭv'ĭ·dē), *n. pl.* [NL.] See OLIVA.
ol'la·pod, *n.* Short for OLLA-PODRIDA. [OLIVER, OLIVIA.]
Ol'lie (ŏl'ĭ), *n.* Dim. of OLIVE,
olm (ōlm), *n.* [G., orig., a salamander.] See PROTEUS, 3 a.
Ol'o·fer'nes (ŏl'ō·fûr'nēz). Var. of HOLOFERNES. *Bib.*
ol'o·graph. Erron. var. of HOLOGRAPH. [ALP, bullfinch.]
olp (ōlp), **olph** (ōlf). Vars. of
öl'tön'de (ûl'tûn'dē), *n. sing. & pl.* [Dan., beer cask. See ALE; TUN.] See MEASURE, *Table.*
öl'tun'na (ûl'tûn'nȧ), *n. sing. & pl.* [Icel. See ÖLTÖNDE.] See MEASURE, *Table.*
O·lym'pas (ō·lĭm'păs). *Bib.*
O·lym'pi·an·ly, O·lym'pi·an·wise', *adj.* See -LY, -WISE. [*Bib.*]
O·lym'pi·as (ō·lĭm'pĭ·ăs). *D.*
O·lym'pi·cal, *adj.* Olympic. *Obs.*
Om'a·e'rus (ŏm'ȧ·ē'rŭs). *Bib.*
O'mar (ō'mẽr). *Bib.*
-o'ma·ta, *pl.* of -OMA.
-om'a·tous. See -OMA a.
O·may'yad (ō·mī'yăd), **O·mey'yad** (ō·mī'-). Vars. of OMMIAD.
om·brel'la. ✝ UMBRELLA.

a'er·o·ther'a·py, a'ër·o·ther'a·py (ā'ẽr·ō·thĕr'ȧ·pĭ), *n.* [*aero-* + *-therapy.*] Aerotherapeutics.
a'er·ot'ro·pism, *or* **a'ër·o-** (ā'ẽr·ŏt'rō·pĭz'm), *n.* [*aero-* + *-tropism.*] *Plant Physiol.* Deviation of roots or other organs from the usual direction of elongation, caused by diffusion of gases. — **a'er·o·trop'ic,** *or* **a'ër·o-** (-ō·trŏp'ĭk), *adj.*
ae·ru'gi·nous (ē·rōō'jĭ·nŭs), *adj.* Also **ae·ru'gi·nose** (-nōs). [L. *aeruginosus*, fr. *aerugo* rust of copper, fr. *aes* copper.] Of the nature or color of copper rust, or verdigris.
ae·ru'go (ē·rōō'gō), *n.* [L., fr. *aes* brass, copper.] The rust of any metal, esp. of brass or copper; verdigris.
a'er·y, a'ër·y (ā'ẽr·ĭ; âr'ĭ), *adj.* [See AIR.] Aerial; ethereal; incorporeal; visionary. *Poetic.* "*Aery* knights." *Milton.*
aes (ēz), *n.* [L. See ORE.] *Rom. Antiq.* Bronze or copper; hence, anything made of bronze or copper, esp. money.
Aes'chy·le'an (ĕs'kĭ·lē'ăn), *adj.* Of, pertaining to, or characteristic of, the poet Aeschylus, the "Father of Greek Tragedy." See ORESTEIA; cf. SEVEN AGAINST THEBES.
Aes'chy·nan'thus (ĕs'kĭ·năn'thŭs), *n.* [NL., fr. Gr. *aischynē* shame + *anthos* flower.] **a** *Bot.* Syn. of TRICHOSPORUM. **b** [*not cap.*] *Hort.* Any species of *Trichosporum.*
Aes'chy·nom'e·ne (-nŏm'ĕ·nē), *n.* [NL. See AESCHYNOMENOUS.] *Bot.* A genus of 60 species of shrubs and herbs of the pea family (Fabaceae), widely distributed in warm regions. They have pinnate, often sensitive, leaves, and jointed pods. *A. aspera* yields sola fiber; *A. virginica* is the sensitive joint vetch.
aes'chy·nom'e·nous (-nŭs), *adj.* [Gr. *aischynomenos*, pres. part. of *aischynesthai* to be ashamed.] *Bot.* Sensitive, as the leaves of certain plants.
‖**aes Co·rin'thi·um** (ēz kō·rĭn'thĭ·ŭm). [L.] Corinthian bronze.
Aes'cu·la'ce·ae (ĕs'kū·lā'sē·ē), *n. pl.* [NL., fr. L. *aesculus* a kind of oak.] *Bot.* A family of three genera of shrubs and trees (order Sapindales), the horse-chestnut family. Syn. *Hippocastanaceae.* See AESCULUS. — **aes'cu·la'ceous** (-lā'shŭs), *adj.*
Aes'cu·la'pi·an (-pĭ·ăn), *adj.* Of or pert. to Aesculapius or the healing art; medical; medicinal. — *n.* A physician.
Aes'cu·la'pi·us (-ŭs), *n.* [L.] *Rom. Relig.* The god of medicine, the Greek *Asclepius.* His worship was introduced into Rome about 293 B.C. in response to an oracle of the Sibylline Books promising relief from the plague.
Aes'cu·la'pi·us, *or* **Aes'cu·la'pi·an, snake.** A harmless European snake (*Coluber longissimus*) supposed to have been held sacred to Aesculapius by the Romans.
Aes'cu·lus (ĕs'kū·lŭs), *n.* [L., a kind of oak.] *Bot.* A genus of 25 species of trees and shrubs, type of the family Aesculaceae, found in north temperate regions. They have palmately divided leaves, showy flowers in ample panicles, and large shiny seeds. The genus includes the Old World horse chestnut (*A. hippocastanum*) and the American buckeyes. See BUCKEYE.
‖**aes Cy'pri·um** (ēz sĭp'rĭ·ŭm). [L.] Copper.
‖**aes gra've** (grā'vē). [L.] Literally, heavy bronze; hence, a cumbersome bronze coinage begun by the Romans and other Italic tribes in the 4th century B.C.
Ae'sir (ā'sĭr; ē'sĭr), *n. pl.* [ON., pl. of *āss* god.] The chief gods of the Teutonic pantheon. Imported to the North at a comparatively late date, they have partly supplanted the Vanir, old fertility deities, with whom they are associated in Norse sources. The Aesir included: Odin or Woden, Thor or Donar, Tyr or Tiu, Balder, Forseti, Heimdall, and, of less importance, Hoenir, Ull, Vitharr, Vali, and Bragi. Of Vanir stock are Njorth, Frey, and the goddess Freya, who, according to the myth, became by force of arms sharers in the Aesir's rule. Loki, not orig. one of the Aesir, is adopted by them. (See RAGNAROK.) With the Aesir were associated the Asynjur. Cf. ASGARD.
Ae·so'pi·an (ē·sō'pĭ·ăn), *adj.* Of, pertaining to, or in the manner of, Aesop or his beast fables.
Ae·sop'ic (ē·sŏp'ĭk), *adj.* Aesopian.
Ae'sop prawn (ē'sŏp). *Zool.* A small decapod crustacean of the genus *Hippolyte.*
‖**aes ru'de** (ēz rōō'dē). [L.] Rude masses of bronze used as money in Italy before the aes grave.
‖**aes sig·na'tum** (sĭg·nā'tŭm). [L.] A bar of bronze, frequently stamped with crude animal figures, used as a medium of exchange in Rome and Italy (450–250 B.C.).
Aes'tas (ĕs'tăs), *n.* [L. See ESTIVAL.] *Rom. Relig.* A goddess, personification of summer.
aes'thete (ĕs'thēt *or, esp. Brit.*, ēs'thēt), **es'thete** (ĕs'-), *n.* [Gr. *aisthētēs* one who perceives.] One who makes much or overmuch of the sense of the beautiful.
aes·thet'ic (ĕs·thĕt'ĭk *or, esp. Brit.*, ēs·thĕt'ĭk), **es·thet'ic** (ĕs-), *adj.* **1.** Of or pertaining to aesthetics; as, *aesthetic* theories, studies, or experiments.
2. Of or pert. to the beautiful, as distinguished from the merely pleasing, the moral, and, esp., the useful; as, a purely *aesthetic* reaction; *aesthetic* criteria or pleasure.
3. Of or pert. to pure feeling or sensation, in contrast to ratiocination and the like; as, the *aesthetic* element in knowledge.
4. Appreciative of, or responsive to, the beautiful in art or nature; manifesting taste; as, an *aesthetic* race or age.
aes·thet'ic, es·thet'ic, *n.* **1.** *Philos.* **a** = AESTHETICS. **b** [*sometimes cap.*] The science of cognition through the senses; as, the *Aesthetic* of Kant.
2. An aesthete.
aes·thet'i·cal (-ĭ·kăl), **es·thet'i·cal,** *adj.* Aesthetic.
aes·thet'i·cal·ly, es·thet'i·cal·ly, *adv.* of AESTHETIC, -ICAL.
aes'the·ti'cian (ĕs'thē·tĭsh'ăn; ēs'-), **es'the·ti'cian** (ĕs'-), *n.* One versed in, or professionally occupied with, aesthetics.
aes·thet'i·cism (ĕs·thĕt'ĭ·sĭz'm *or, esp. Brit.*, ēs·thĕt'-), **es·thet'i·cism** (ĕs-), *n.* **1.** *Philos.* **a** The doctrine that the principles of beauty are basic and that other principles, such as those of the good and the right, are derivative from them. **b** The doctrine that true knowledge is due to the immediate presentation of reality (*esthesis*) rather than to analytic thought.
2. Susceptibility to aesthetic influences.
3. An instance of either of these.
aes·thet'i·cize (ĕs·thĕt'ĭ·sīz *or, esp. Brit.*, ēs-), **es·thet'i·cize** (ĕs-), *v. t.* To render aesthetic.
aes·thet'ics (ĕs·thĕt'ĭks *or, esp. Brit.*, ēs·thĕt'ĭks), **es·thet'ics** (ĕs-), *n.* [Gr. *aisthētikos* perceptive, esp. by feeling, fr. *aisthanesthai* to perceive, feel; cf. G. *ästhetik.* See -ICS.] The branch of philosophy dealing with beauty or the beautiful, esp. in the fine arts; a theory or the theories of beauty, its essential character, the tests by which it may be recognized or judged, and its characteristic relation to or effect upon the human mind; also, the scientific study of taste (sense 7); the psychology of the sensations and emotions that have the fine arts for their stimulus.
☞ *Aesthetics* is usually construed as a singular noun.
☞ The word *aesthetic*, in the Latin form *aesthetica*, was first used by Baumgarten about 1750 to designate the science of sensuous knowledge, whose goal is beauty, in contrast with logic, whose goal is truth. Kant objected to this use of the term, and used *transcendental aesthetic* to denote the a priori principles of sensible experience, namely, time and space. Hegel elaborated (1820–30) a science of the fine arts which he called *Ästhetik*, and won so much approval for his work that since his time the word in his sense is generally adopted. Cf. BEAUTY.
A'ë·ta (ā'ā·tä), *n.* [Perh. fr. Visayan *maitom* (fr. *itom*) black, with *m* taken as pref.; cf. Malay *itam* dark-colored.] A Negrito of the Philippines. The Aëtas are a dwarf race, and of the lowest culture; they are generally considered to be aboriginal in the archipelago.
ae·tha'li·um (ē·thā'lĭ·ŭm), *n.; pl.* -LIA (-ȧ). [NL., fr. Gr. *aithalos* thick smoke, soot.] *Bot.* In several genera of the slime molds (class Myxomycetes), a flat incrusted fruiting body, formed by the fusion of many plasmodia. — **ae·tha'li·oid** (-oid), *adj.*
a·e'the·o·gam'ic, a·ë'the·o·gam'ic (ȧ·ē'thē·ō·găm'ĭk), **a·e'the·og'a·mous, a·ë'the·og'a·mous** (-ŏg'ȧ·mŭs), *adj.* [Gr. *aēthēs* unusual + *gamos* marriage.] *Bot.* Cryptogamous. — **a·e'the·o·gam', a·ë'the·o·gam'** (ȧ·ē'thē·ō·găm'), *n.*
Ae'ther (ē'thẽr), *n.* [L., fr. Gr. *Aithēr.* See ETHER.] *Gr. Myth.* A personification of the sky, said to be the son of Chaos and Darkness, or of Erebus and Night. *Hesiod.*
ae'thered (ē'thẽrd), *adj.* Rarefied; ethereal.
Ae'thi·o·ne'ma (ē'thĭ·ō·nē'mȧ), *n.* [NL., fr. a coined Gr. *aithios* bright (fr. *aithos* gleam, glow) + Gr. *nēma* thread, yarn.] *Bot.* A genus of 50 species of herbs of the mustard family (Brassicaceae), found in the Mediterranean region. They have sessile glaucous leaves, and some are cultivated for their white or rose-colored flowers.
ae'tho·gen (ē'thō·jĕn; ĕth'ō-), *n.* [Gr. *aithos* fire, light + *-gen.*] *Chem.* A phosphorescent variety of boron nitride.
ae'thri·o·scope' (ē'thrĭ·ō·skōp'; ĕth'rĭ-), *n.* [Gr. *aithrios* clear + *-scope.*] A delicate instrument consisting in part of a differential thermometer, for measuring changes of temperature produced by different conditions of the sky.
Ae·thu'sa (ē·thū'sȧ), *n.* [NL., fr. Gr. *aithousa*, fem. pres. part. of *aithein* to burn.] *Bot.* A genus of herbs of the carrot family (Ammiaceae), found in Europe and northern Asia. The only species, *A. cynapium*, is fool's-parsley.
A·ë'tian (ȧ·ē'shăn), *n. Eccl. Hist.* An Anomoean; — so called from Aëtius of Antioch (died A.D. 367), an early leader of the Anomoeans. See ANOMOEAN.
ae'ti·o- (ē'tĭ·ō-), **ai'ti·o-** (ī'tĭ·ō-; ā'tĭ·ō-). Also **e'ti·o-.** A combining form, Greek *aitio-*, from *aitia*, a cause, as in **ae'ti·o·gen'ic, ai'ti·o·trop'ic.** See -GENIC, -TROPIC.
a·ë'to-, a·e'to- (ȧ·ē'tō-), **aët-, aet-.** A combining form, from Greek *aetos*, eagle, used in *Zool.* for class names, as in *Aëto*saurus.
A·ë'to·bat'i·dae (ȧ·ē'tō·băt'ĭ·dē), *n. pl.* [NL., fr. *aëto-* + Gr. *batis, batidos*, a skate.] *Zool.* The family consisting of the eagle rays. The type genus is **A'ë·tob'a·tus** (ā'ē·tŏb'ȧ·tŭs). See EAGLE RAY.
Ae·to'li·an (ē·tō'lĭ·ăn), *adj.* Of or pertaining to Aetolia, a district of Greece north of the gulfs of Corinth and Patras, or its inhabitants. — **Ae·to'li·an,** *n.*
Aetolian League. *Greek Hist.* A confederation of the tribes of Aetolia, afterwards including also parts of Acarnania, Locris, Thessaly, Phocis, Boeotia, etc., which after 338 B.C. long opposed Macedon and the Achaean Leagues.
A·ë'to·sau'rus (ȧ·ē'tō·sô'rŭs), *n.* [NL., fr. *aëto-* + *-saurus.*] *Paleontol.* A genus of small crocodilian reptiles of the Triassic period. — **a·ë'to·saur** (ȧ·ē'tō·sôr), *n.* — **a·ë'to·sau'ri·an** (-sô'rĭ·ăn), *adj. & n.*
-a'ë·tus, -ae·tus (-ā'ē·tŭs). [NL.] A noun terminal corresponding to *aëto-*, used for generic names in ornithology, as in Circ*aëtus.*
ae'vi·a (ē'vĭ·ȧ). Short for ALLELUIA; — in old church music.
af-. A form of AD- assimilated in Latin before *f*, as in *af*fectus, for *ad*fectus. See 3d AFFECT, *v.*
a·face' (ȧ·fās'), *adv.* In face; in front.
a·faint' (ȧ·fānt'), *adj.* Fainting.
a·far' (ȧ·fär'), *adv.* [fr. *a* (for *on* or *of*) + *far.*] From, at, or to a great distance; far away; — often with *from* preceding, or *off* following; as, I saw him from *afar*, or *afar* off.
The steep where Fame's proud temple shines *afar.* *Beattie.*
A·far' (ä·fär'), *n.; pl.* AFARA (ä·fä'rä). A Hamite of the tribes of northeastern Abyssinia. See HAMITIC LANGUAGES.
a·fa'ra (ȧ·fä'rä), *n.* A Nigerian tree (*Terminalia superba*), valued for its wood.
a·fear' (ȧ·fēr'), *v. t.* [ME. *aferen*, fr. AS. *āfǣran* to frighten, fr. *ā-* (see A-, 2) + *fǣran* to frighten. See FEAR.] To make afraid; to frighten. *Obs. exc. Dial.*
a·feard', a·feared' (ȧ·fērd'), *adj.* Afraid. *Archaic & Dial.*
Be not *afeard*; the isle is full of noises. *Shak.*
Af'e·nil (ăf'ē·nĭl), *n. Pharm.* A trade-mark applied to a molecular compound of calcium chloride and urea; hence [*sometimes not cap.*], this substance. It is injected intravenously where calcium is indicated.
af'er·nan (ăf'ẽr·năn), *n.* [Ar. *farnān.*] A desert shrub (*Euphorbia balsamifera*), native to the Canary Islands, having leaves at the ends of the branches and inconspicuous yellow flowers.
a·fe'tal (ā·fē'tăl; -t'l), *adj.* [*a-* not + *fetal.*] *Med.* **a** Without a fetus. **b** Not pertaining to a fetus.
af'fa (ăf'ȧ), *prep.* From off. *Dial.*
af'fa·bil'i·ty (ăf'ȧ·bĭl'ĭ·tĭ), *n.* [F. *affabilité*, fr. L. *affabilitas*, fr. *affabilis.* See AFFABLE.] Quality or state of being affable; readiness to converse; sociability.
af'fa·ble (ăf'ȧ·b'l), *adj.* [F., fr. L. *affabilis*, fr. *affari* to speak to, fr. *ad* to + *fari* to speak. See FABLE.] **1.** Easy to speak to; fluent and suave in conversation; courteous and amiable in response to another's address; sociable.
2. Mild and gracious; benign.
A serene and *affable* countenance. *Tatler.*
Syn. — Complaisant, accessible. See CIVIL.
Ant. — Arrogant, ill-tempered, surly, hateful.
— **af'fa·ble·ness,** *n.* — **af'fa·bly,** *adv.*
af'fa·brous (ăf'ȧ·brŭs), *adj.* [L. *affaber* workmanlike.] Workmanlike; well-made. *Rare.*
af·fair' (ă·fâr'), *n.* [ME. *affere, afere*, fr. OF. *afaire* (F. *affaire*), fr. *a faire* to do, fr. L. *ad* to + *facere* to do. See FACT; cf. ADO.] **1.** That which is done or is to be done; matter; concern; as, a difficult *affair* to manage; business of any kind, commercial, professional, or public; — often in *pl.*; as, a man of *affairs.* "At the head of *affairs.*" *Junius.* "A talent for *affairs.*" *Prescott.*
2. *Obs.* **a** Action; endeavor. **b** Manner; conduct. **c** Fortune; rank.
3. A proceeding or action; also, a material thing; — used with intentional vagueness.
4. *Mil.* A small, unimportant engagement.
5. Short for LOVE AFFAIR.
Syn. — Proceeding, concern, thing, circumstance; transaction, matter, fight, duel.
af·faite' (ă·fāt'), *v. t.* [OF. *afaitier.*] **1.** To adapt or prepare; hence, to array; dress. *Obs.*
2. To train or tame; to subdue. *Obs.*
af·fect' (ă·fĕkt'), *n.* [L. *affectus* disposition, affection, fr. *afficere.* See 3d AFFECT, *v.*] **1.** Affection; inclination; passion; feeling; disposition. *Obs.*
'T is reason's glory to command *affects.* *Marston.*
2. Physical condition or disposition, esp. if abnormal; distemper. *Obs.*
3. (*pron.* ăf'ĕkt) *Psychol.* Feeling, emotion, and desire, with an implication of their importance in determining thought and conduct; — from German *Affekt.*
af·fect', *adj.* [L. *affectus.*] Disposed; affected. *Obs.*
af·fect' (ă·fĕkt'), *v.* [F. and L.; F. *affecter*, fr. L. *affectare* to aim at, freq. of *afficere* to apply (oneself) to, fr. *ad* to + *facere* to do. See FACT.] *Transitive:* **1.** To aspire to the possession or achievement of; to have as one's aim; as, to *affect* glory. *Archaic.*
2. **a** *Archaic.* To have affection for (a person or object).
Maria once told me she did *affect* me. *Shak.*
b To be fond of, as using, frequenting, or wearing; to be given to; as, to *affect* loud neckties or loud talking.
That peculiar costume which he *affected.* *Thackeray.*
3. To frequent or haunt; to be frequently or habitually found in; — used esp. of animals and plants.
4. To tend to by affinity or disposition.
The drops of every fluid *affect* a round figure. *Newton.*
5. To make a display of liking, adopting, or following after; to cultivate or profess ostentatiously.
Bentham was the philosopher then *affected* by young gentlemen of ambition. *Beaconsfield.*
6. To assume the character or appearance of; to put on a pretense of; to pretend; to feign; to counterfeit; as, to *affect* indifference.
—, *Intransitive:* **1.** To incline or like. *Obs.*
2. To assume manners or airs. *Rare.*
Syn. — Pretend, simulate. See ASSUME.
af·fect' (ă·fĕkt'), *v. t.* [L. *affectus*, past part. of *afficere* to do to, attack. See 3d AFFECT, *v.*] **1.** To lay hold of or attack (as a disease does); to act, or produce an effect, upon; to impress or influence (the mind or feelings); to touch.
2. To assign; to allot; — only in passive. *Eng.*
3. *Com.* To hypothecate or assign as security (certain revenues) for a loan. *A Gallicism.*
4. *Scots Law.* To lay hold of or seize, as a debtor's property.
Syn. — Influence, operate, act on, concern; move, melt, soften. See CONCERN.
af'fec·ta'tion (ăf'ĕk·tā'shŭn), *n.* [F. and L.; F. *affectation*, fr. L. *affectatio.*] **1.** A striving after; aspiration toward. *Obs.*
2. Fondness, esp. when ostentatiously displayed; affection. *Now Rare.*
3. An attempt to assume or exhibit what is not natural or real; an instance of this, esp. in speech or behavior; false display. "An *affectation* of contempt." *Macaulay.*
Syn. — AFFECTATION, MANNERISM. AFFECTATION suggests something consciously artificial or assumed, and consequently insincere; MANNERISM may imply excess or singularity, but does not suggest insincerity. A *mannerism* consciously assumed becomes thereby an *affectation*; what begins as an *affectation* may become an unconscious trick of behavior and so a *mannerism.* Cf. MANNER, ASSUME.
His [Byron's] utter contempt of all the *affectations* of literature, from the school-magisterial style to the lackadaisical. *Scott.*
The *mannerisms* and errors of these [Burne-Jones's] pictures . . . are never affected or indolent. The work is natural to the painter, however strange to us. *Ruskin.*
af·fect'ed (ă·fĕk'tĕd; -tĭd; 119), *adj.* [From 3d AFFECT, *v.*] **1.** *Obs.* **a** Aimed at; wished for. **b** Cherished; done or had

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‖**ae·ru'go no'bi·lis** (nŏb'ĭ·lĭs). [L.] The greenish crust that is formed on antique bronzes.
a'er·y, a'ër·y, *n.* Var. of AERIE.
aes'chy·nite. Var. of ESCHYNITE.
aes'cu·le'tin. Var. of ESCULETIN.
aes'cu·lin. Var. of ESCULIN.
‖**aes et li'bram** (ēz). Short for PER AES ET LIBRAM.
‖**aes li·bra'lis.** = AES GRAVE.
Ae'son (ē'sŏn), *n.* [L., fr. Gr. *Aisōn.*] *Gr. Myth.* See MEDEA.
aes'tha·cyte. Var. of ESTHACYTE.
aes·the'ma·tol'o·gy. Var. of ESTHEMATOLOGY.
aes·the'si·a. Var. of ESTHESIA.
aes·the'si·o-. Var. of ESTHESIO-.
aes·the'si·o·gen, -o·gen'ic, -og'e·ny. Vars. of ESTHESIOGEN, -OGENIC, -OGENY.
aes·the'si·og'ra·phy. Var. of ESTHESIOGRAPHY.
aes·the'si·ol'o·gy. Var. of ESTHESIOLOGY.
aes·the'si·o·ma'ni·a (ĕs·thē'zĭ·ō·mā'nĭ·ȧ), *n.* [NL. See ESTHESIO-; -MANIA.] *Med.* Insanity accompanied by sensory hallucinations. *Obs.*
aes·the'si·om'e·ter, -o·met'ric, -om'e·try, etc. Vars. of ESTHESIOMETER, -OMETRIC, etc.
aes·the'si·o·neu·ro'sis. Var. of ESTHESIONEUROSIS.
aes·the'sis. Var. of ESTHESIS.
aes·thet'i·cist (ĕs·thĕt'ĭ·sĭst, ēs-), *n.* = AESTHETICIAN.
aes'the·tol'o·gy. Var. of ESTHETOLOGY.
aes·thet'o·phore. Var. of ESTHETOPHORE.
aes'thi·ol'o·gy (ĕs'thĭ·ŏl'ō·jĭ), *n.*, **aes'tho·phys'i·ol'o·gy** (ĕs'thō·fĭz'ĭ·ŏl'ō·jĭ), *n.* = ESTHESIOPHYSIOLOGY.
Aes'ti·i (ĕs'tĭ·ī; ēs'tĭ·ī), *n. pl.* [L.] See BALT, *n.*, 1.
aes'ti·val. Var. of ESTIVAL.
aes'ti·vate, aes'ti·va'tion, aes'ti·va'tor. Vars. of ESTIVATE, etc.
aes'tive. Var. of ESTIVE.
aes'ti·vo-au·tum'nal. Var. of ESTIVO-AUTUMNAL.
‖**aes tri'plex** (ēz trĭ'plĕks; trĭp'lĕks). [L.] Triple brass or bronze; strong protection or defense; stout-heartedness. *Horace.*
aes'tu·ar'y. Var. of ESTUARY.
aes'tu·ate, aes'tu·a'tion, aes'tu·ous, aes'ture, aes'tus. Vars. of ESTUATE, ESTUATION, etc.
aët-, aet-. = AETO-.
‖**ae·ta'tis su'ae.** [L.] Literally, of his (or her) age; in the (given) year of one's age.
ae·tern', ae·ter'nal, etc. Rare vars. of ETERN, ETERNAL, etc.
aeth'el·ing. Var. of ATHELING.
ae'ther, ae·the're·al, ae·ther'ic. Vars. of ETHER, ETHEREAL, ETHERIC.
Ae·the'ri·a, Ae'the·ri'i·dae. Vars. of ETHERIA, ETHERIIDAE.
ae'ther·in. Var. of ETHERIN.
ae·the'ri·on. Var. of ETHERION.
Ae'thi·op, Ae'thi·o'pi·an, etc. Vars. of ETHIOP, ETHIOPIAN, etc.
ae'thi·ops. Var. of ETHIOPS.
ae·thoch'ro·i (ē·thŏk'rō·ī). Var. of AITHOCHROI.
ae'ti·o·log'i·cal, -log'i·cal·ly. Vars. of ETIOLOGICAL, -LOGICALLY.
ae'ti·ol'o·gist. Var. of ETIOLOGIST.
ae'ti·o·logue'. Var. of ETIOLOGUE.
ae'ti·ol'o·gy. Var. of ETIOLOGY.
ae'ti·o·phyl'lin. Var. of ETIOPHYLLIN.
ae'ti·o·por'phy·rin. Var. of ETIOPORPHYRIN.
ae'ti·o·trop'ic, -trop'i·cal·ly. Vars. of ETIOTROPIC, -TROPICALLY.
a'ë·ti'tes (ā'ē·tī'tēz), *n.* [L., fr. Gr. *aetitēs* (sc. *lithos* stone), fr. *aetos* eagle.] = EAGLESTONE.
Aet·ne'an (ĕt·nē'ăn). Var. of ETNEAN.
A·ë'to·mor'phae (ȧ·ē'tō·môr'fē), *n. pl.* [NL., fr. Gr. *aetos* eagle + *-morphae.*] = FALCONIFORMES.
ae'vi·ter'nal, ae'vi·ter'nal·ly, etc. Vars. of EVITERNAL, EVITERNALLY, etc.
‖**ae'vum** (ē'vŭm), *n.* [L., an age, eternity.] = AEON.
Aex (ēks). *Zool.* Var. of AIX.
a'fald (ä'fäld), *adj.* [AS. *ānfeald.*] Single; sole; only; also, simple; sincere. *Obs. exc. Scot.*
a'fald·ly, *adv.* — **a'fald·ness,** *n.*
a·fa'si·a. Aphasia. *Ref. Sp.*
a·fear', *adj.* In fear. — *conj.* For fear. *Obs. exc. Dial.*
a·fe'bril. Afebrile. *Ref. Sp.*
a·fe'brile, *adj.* See A-, not.
a·fel'ion. Aphelion. *Ref. Sp.*
a·fe'mi·a. Aphemia. *Ref. Sp.*
afer. † AFAR, AFFAIR, AVER.
aferd. † AFEARD.
a·fer'e·sis. Aphaeresis. *Ref. Sp.*
aff (äf). Scot. var. of OFF.
af'fa·bl. Affable. *Ref. Sp.*
‖**af'faire'** (ä'fâr'), *n.* [F.] Short for AFFAIRE D'AMOUR.
‖**af'faire' d'a'mour'** (dȧ'mōōr'). [F.] A love affair.
‖**af'faire' de cœur'** (dẽ kûr'). [F.] An affair of the heart; a love affair; affaire d'amour.
‖**af'faire' d'hon'neur'** (dŏ'nûr'). [F.] An affair of honor; a duel.
af·fam'ish, *v. t. & i.* [F. *affamer*, fr. L. *ad* to + *fames* hunger. Cf. FAMISH.] To starve. *Obs. Spenser.* — **af·fam'ish·ment,** *n.*
af·fat'u·ate, *v. t.* [L. *ad* to + *fatuus* foolish.] To infatuate. *Obs.*
af·fear'. † AFFRAY, AFFEER.
af·fect'a·ble, *adj.* = AFFECTIBLE.
af·fec'tate, *adj.* [L. *affectatus*, past part.] Affected; artificially assumed or assuming. *Obs.* — **af·fec'tate·ly,** *adv. Obs.* [*Obs.*]
af·fec'tate, *v. t. & i.* To affect.
af'fec·ta'tion·ist, *n.* See -IST.

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ABBREVIATIONS

The following abbreviations are those generally used in American and British printed literature. In recent usage there has been a strong tendency to omit the period with certain classes of abbreviations, but good use still demands it in most cases. See also *Arbitrary Signs and Symbols*, in Appendix; *Abbreviations used in this Dictionary*, preceding Vocabulary.

A, argon (*Chem.*); a Fraunhofer line caused by terrestrial oxygen (*Astrophysics*).
A., Alfred, Anna, and other personal names; Absolute (temperature); Absolvo (L., I absolve); Academy; Academician; America; American; Antiquo (L., [for the] old [law]), used on Roman ballots to signify a negative vote; April; Aulus. — *or* **a.**, arteria; artillery.
A:, Anna. *Cataloguing.*
A:, Augustus. *Cataloguing.*
A: a, Augusta. *Cataloguing.*
A., **Å.**, angstrom unit. *Physics.*
a., about; accepted (*Com.*); acre, *or* acres; acting; active; adjective; after; afternoon; aged; alto; amateur; ampere; ana- (*Chem.*); anno (L., in the year); annus (L., year); anode; anonymous; answer; ante; approved (*Com.*); are (*Metric System*); area; argent (*Her.*); assists; at.
a, asymmetrical. *Chem.*
a, **@**, **ad** (L., at, *or* to). *Com.*
ā, **āā**, **Ā**, *or* **ĀĀ**, ana. *Med.*
A.A., antiaircraft; Associate in Arts.
AAA, Agricultural Adjustment Administration.
AAA., Amalgama. *Chem.*
A.A.A., Amateur Athletic Association; American Automobile Association; Automobile Association of America.
A.A.A.L., American Academy of Arts and Letters.
A.A.A.S., American Association for the Advancement of Science.
A.A.C., Anno Ante Christum.
A.A.E., American Association of Engineers.
A. and M., Agricultural and Mechanical.
A.A.O.N.M.S., Ancient Arabic Order of Nobles of the Mystic Shrine.
A.A.P.S.S., American Academy of Political and Social Science.
Aar., Aaron.
A.A.R., against all risks.
A.A.S., Academiae Americanae Socius (L., Fellow of the American Academy); Acta Apostolicae Sedis (L., The Acts of the Apostolic See).
A.A.S.R., **A. & A.S.R.**, Ancient and Accepted Scottish Rite. *Freemasonry.*
A.A.S.S., Americanae Antiquarianae Societatis Socius (L., Fellow of the American Antiquarian Society).
A.A.U., Amateur Athletic Union.
A.A.U.P., American Association of University Professors.
A.A.U.W., American Association of University Women.
Ab, alabamine. *Chem.*
A.B., Artium Baccalaureus (L., Bachelor of Arts). — *or* **a.b.**, able-bodied (seaman).
Ab., Abraham.
ab, the pure albite molecule, $Na_2O.Al_2O_3.6SiO_2$. *Petrog. & Mineral.*
ab., about.
Ab., *Abbas*; Abbot.
abb., abbess; abbey; abbot.
abbr., **abbrev.**, abbreviated; abbreviation.
A.B.C., Aerated Bread Company (*London*); Aerial Board of Control (*Brit.*); (Alphabetical) Railway Guide (*Brit.*); Argentina, Brazil, and Chile; Audit Bureau of Circulation.
A.B.C.F.M., American Board of Commissioners for Foreign Missions (*Congregational*).
abd., abdicated.
A.B.F.M., American Board of (Commissioners for) Foreign Missions.
ab init., ab initio (L., from the beginning).
abl., ablative.
A.B.M.U., American Baptist Missionary Union.
abo., aboriginal.
Abp., **abp.**, Archbishop; archbishop.
abr., abridged; abridger; abridgment.
abs., absolute (temperature); absolutely; abstract.
A.B.S., American Bible Society.
abs. re., absente reo.
abstr., abstract; abstracted.
Abt., Abteilung (G., part; section).
abt., about.
AC, Air Corps.
Ac, acetyl (*Chem.*); actinium (*Chem.*).
Ac., alicyclic.
A.C., Air Corps; Ambulance Corps; Analytical Chemist; Ante Christum (L., before Christ); Army Corps.
A.C., **a.c.**, alternating current. *Elec.*
ac, alicyclic. *Chem.*
ac., acre, *or* acres; money of account.
A/C, **a/c**, account current. *Bookkeeping.*
a/c, **ac.**, account. *Bookkeeping.*
AcA, **AcB**, etc., *actinium A*, *actinium B*, etc. See ACTINIUM, in Vocabulary.
A.C.A., Associate (of the Institute of) Chartered Accountants. *Eng. & Wales.*
acad., academy; academic.
acc., acceptance; accepted; accompanied; accompaniment; accordant; according; according (to); account; accountant; accusative.
accel., accelerando.
accomp., accompaniment.
acct., account.
A.C.E., alcohol, chloroform, and ether (mixture). *Med.*
Ac-Em, actinon, *or* actinon emanation. *Chem.*
A.C.G.I., Associate of the City and Guilds of London Institute.
ack., **ackgt.**, acknowledgment. *Bank.*
A.C.L.S., American Council of Learned Societies.
A.C.P., Associate of the College of Preceptors. *London.*
acpt., acceptance. *Bank.*
A.C.S., Additional Curates Society; American Chemical Society; American College of Surgeons; American Colonization Society.
A/cs Pay., accounts payable.
A/cs Rec., accounts receivable.
act., active.
Act, actinium. *Chem.*
Act-Em, actinon. *Chem.*
Actg., Acting.
Act S., Act of Sederunt.
A.Cu., alto-cumulus.
A.C.U., American Congregational Union.
ACW, alternating continuous waves. *Radio.*
Ad, Aldebaranium. *Chem.*
Ad., Adam.
A.D., Archduke; average deviation.
A.D., **A.D.**, Anno Domini.
ad., addatur (L., let there be added); adde (L., add); adverb; advertisement.
a.d., after date; ante diem (L., before the day).
A.D.A., American Dental Association.
A.D.C., **A.-D.-C.**, Aide-de-camp.
add., addatur (L., let there be added); adde (L., add); additional; additions.
Adf., Adolf.
ad fin., ad finem (L., at, or to, the end).
ad inf., ad infinitum (L., to infinity).
ad init., ad initium (L., to, or at, the beginning).
ad int., ad interim (L., in the meantime).
adj., adjective.
Adj., Adjutant. — *or* **adj.**, adjourned; adjunct; adjustment (*Bank.*).
Adj. Gen., Adjutant General.
Adjt., Adjutant.
Adjt. Gen., Adjutant General.
a.d. Lat., aus dem Lateinischen (G., out of the Latin).
Adlb., Adelbert.
ad lib., **ad libit.**, ad libitum (L., at one's pleasure, freely, to the quantity or amount desired).
ad loc., ad locum (L., to, or at, the place).
Adm., Admiral; Admiralty. — *or* **adm.**, administrative; administrator.
Adm. Co., admiralty court.
admix., administratrix.
Adm'l, **Adml.**, Admiral.
admr., administrator.
admrx., **admx.**, administratrix.
adms., **admstr.**, administrator.
Adº., adagio.
Adr., Adrian.
ads., advertisements; ad sectam.
ads., ad sectam (L., at the suit).
a.d.s., autograph document signed.
A.D.T., American District Telegraph.
ad us., ad usum.
Adv., advertising. — *or* **adv.**, advise. *Banking.*
adv., ad valorem; advent; adverb; adverbial; adverbially; adversus; advertisement; advice; advocate.
Ad val., ad valorem (L., according to value).
Adv. Gen., Advocate General.
advs., adversus.
advt., advertisement.
advtg., advertising.
Æ, in Lloyd's register, denoting a third-class wooden ship unfit to carry cargoes easily injured or perishable.
A.E., Agricultural Engineer.
Ae., aes (L., copper).
ae., **aet.**, **aetat.**, aetatis (L., of age).
A.E. and P., Ambassador Extraordinary and Plenipotentiary.
A.E.F., American Expeditionary Force, *or* Forces.
A.E.I.O.U., Austriae est imperare orbi universo (L., It is for Austria to rule the whole earth); — a device adopted by Frederick III; Alles Erdreich ist Oesterreich untertan.
Aeol., Aeolic.
Aero Sq., **Aer. Sq.**, Aero Squadron.
A.E.S., American Electrochemical Society.
A.E.S.C., American Engineering Standards Committee.
AF., Anglo-French.
Af., Africa; African.
A.F., Admiral of the Fleet; Agricultural Farm (*Australia*); Air Force (*Brit.*); Army Form.
A.F., **a.f.**, audio frequency.
a.f., firkin of ale.
A.F.A., Associate of the Faculty of Actuaries. *Scot.*
A.F.A.M., **A.F. & A.M.**, Ancient Free and Accepted Masons. *Freemasonry.*
A.F.B.S., American and Foreign Bible Society.
A.F.C., Air Force Cross. *Brit.*
aff., affectionate; affirmative(ly); affirming.
afft., affidavit.
a. fir., firkin of ale.
A.F.M., Air Force Medal. *Brit.*
A. F. of L., American Federation of Labor.
Afr., Africa; African.
aft., afternoon.
Ag, argentum (silver). *Chem.*
Ag., August.
A.G., Accountant General; Adjutant General; Agent General; Attorney General.
a.g.b., a good brand; any good brand.
agcy., agency.
A.G.D., Adjutant General's Department.
A.G.O., Adjutant General's Office.
agr., agricultural; agriculture.
agric., agricultural; agriculture; agriculturist.
agrost., agrostology.
agst., against.
Agt., **agt.**, against; agent; agreement.
A.H., Agricultural Homestead (*Australia*); Anno Hebraico (L., in the Hebrew year) — add 3760 to the Christian year; Anno Hegirae.
a.h., ampere-hour; ampere-hours.
A.H.C., Army Hospital Corps.
a.h.l., ad hunc locum (L., at this place).
A.H.M.S., American Home Missionary Society.
A.H.S., Anno Humanae Salutis (L., in the Year of Human Salvation).
a.h.v., ad hanc vocem (L., on this word).
a.i., ad interim.
A.I., American Institute.
A.I.A., American Institute of Architects; Associate of the Institute of Actuaries (*Brit.*).
A.I.C., American Institute of Chemists; Associate of the Institute of Chemistry (of Great Britain and Ireland).
A.I.C.E., American Institute of Chemical Engineers; Associate of the Institution of Civil Engineers (*Brit.*).
A.I.E.E., American Institute of Electrical Engineers; Associate of the Institution of Electrical Engineers (*Brit.*).
A.I.F., Australian Imperial Force.
A.I.M. & M.E., **A.I.M.E.**, American Institute of Mining and Metallurgical Engineers.
A.I.M.E., Associate of the Institution of Mechanical Engineers (*Brit.*); Associate of the Institution of Mining Engineers (*Brit.*).
A:in, Augustin. *Cataloguing.*
A.I.N.A., **A.Inst.N.A.**, Associate of the Institution of Naval Architects. *Brit.*
A:inus, Augustinus. *Cataloguing.*
A. Inv., Anno Inventionis (L., in the Year of Invention) — add 530 to the Christian year.
A.kr., Austrian kronen.
Al, aluminum, *or* aluminium. *Chem.*
A.L., Anno Lucis (L., in the Year of Light) — add 4000 to the Christian year (*Freemasonry*); Annual Lease (*Australia*).
AL., Anglo-Latin.
Ala., Alabama.
A.L.A., American League of Automobilists; American Library Association; Automobile Legal Association.
A.L.A.M., Association of Licensed Automobile Manufacturers.
Alas., Alaska.
Alb., Albanian; Albany; Albert; Alberta.
Alb., Albert.
Alba., Alberta (Canada).
Alban., Albanian.
Albr., Albrecht.
alc, alcohol.
Ald., **Aldm.**, Alderman.
Alex., Alexander; Alexandre.
Alf., Alfonso; Alfred.
Alfr., Alfred.
Alg., Algernon; Algiers. —, *or* **alg.**, algebra.
A.L.I., American Library Institute.
Alph., Alphonse.
A.L.S., Associate of the Linnaean Society. *Brit.*
a.l.s., autograph letter signed.
alt., alternate; alternating; alternations; altitude; alto.
Alta., Alberta (Canada).
alum., aluminum.
Am, ammonium; amyl.
Am., America; American; ammunition (party) (*Mil.*).
Am., **am.**, ammeter.
A.M., anno mundi; Artium Magister (L., Master of Arts); Ave Maria.
A.M., **A.M.**, **a.m.**, ante meridiem.
A.M.A., American Medical Association; American Missionary Association.
Amad., Amadeus.
Amb., Ambassador; Ambrose; ambulance (party) (*Mil.*).
Amb. Co., Ambulance Company.
A.M.D., Army Medical Department.
A.M.E., African Methodist Episcopal.
Amer., America; American.
A.M.I.C.E., Associate Member of the Institution of Civil Engineers. *Brit.*
A.M.I.E.E., Associate Member of the Institution of Electrical Engineers. *Brit.*
A.M.I.N.A., Associate Member of the Institution of Naval Engineers. *Brit.*
Am. Inst. E.E., American Institute of Electrical Engineers.
amm., amalgama.
amp., ampere; amperes; amperage.
amp.-hr., ampere-hour.
A.M.S., Army Medical Service; Army Medical Staff.
Am. Soc. C. E., American Society of Civil Engineers.
Am. Soc. M. E., American Society of Mechanical Engineers.
Amst., Amsterdam.
amt., amount.
An, actinon. *Chem.*
an, anno; anonymous; the pure anorthite molecule $CaO.Al_2O_3.2SiO_2$ (*Petrog. & Mineral.*).
AN., Anglo-Norman.
a.n., arrival notice. *Shipping.*
A.N.A., Associate National Academician; Australian Natives Association.
ana., anastomosing.
anal., analogous; analogy; analysis; analytic; analytical; analyze; analyzer.
analyt., analytical.
Anast., Anastasius.
anat., anatomical; anatomist; anatomy.
ANC, Army Nurse Corps.
A.N.C., Ante Nativitatem Christi (L., before the birth of Christ).
anc., ancient; anciently.
and., andante.
And., André; Andreas; Andrew.
and/or, see in Vocabulary.
Ang., Anglice.
ang., angular. *Chem.*
Angl., Anglican.
Ang.-Sax., Anglo-Saxon.
anim., animato.
ann., annales (L., annals); anni (L., years); annual; annuities; annuity.
annot., annotator.
anon., anonymous.
Ans., Anselm.
ans., answer; answered.
a.n.s., autograph note signed.
A.N.S.S., Associate of Normal School of Science.
Ant., Anthony; Antigua; Antoine; Anton.
ant., antiquarian; antiquities; antonym.
Anth., Anthony.
anthrop., **anthropol.**, anthropological; anthropology.
antiq., antiquarian; antiquities.
A.O., Anno Ordinis (L., in the Year of the Order) — subtract 1118 from the present year (*Knights Templar*); Army Order.
a/o, **A.O.**, account of.
A.O.C., Army Ordnance Corps.
A.O.D., Army Ordnance Department.
A.O.F., Ancient Order of Foresters.
A.O.H., Ancient Order of Hibernians.
aor., aorist.
A.O.S.E., American Order of Stationary Engineers.
A.O.S.S., Americanae Orientalis Societatis Socius (L., Fellow of the American Oriental Society).
A.O.U., American Ornithologists' Union.
A.O.U.W., Ancient Order of United Workmen.
A P, airplane. *Mil.*
A/P, authority to pay.
Ap., Apostle; Appius; April.
A.P., **AP**, ***AP***, Associated Press.
A.P., Associate Presbyterian.
ap., apud (L., according to).
a.p., aboveproof; armor-piercing; assessment paid; author's proof.
A.P.A., American Philological Association; American Protective Association.
A.P.C., Army Pay Corps.
A.P.D., Army Pay Department.
A.P.I., American Petroleum Institute.
Apl., April.
A.P.O., African People's Organization. *So. Afr.*
apo., apogee.
Apoc., Apocalypse; Apocrypha; Apocryphal.
Apocr., Apocrypha.
App., Apostles; Appellate.
app., apparent; apparently; appended; appendix; appointed; apprentice.
appar., apparent; apparently.
approx., approximate; approximately.
Apr., April.
A.P.R.C., Anno Post Romam Conditam (L., in the year after the founding of Rome).
A.P.S., American Peace Society; American Philatelic Society; American Philosophical Society; American Physical Society; Associate of the Pharmaceutical Society (*Brit.*).
Apt., apartment. **Apts.**, apartments.
apx., appendix.
Aq, **aq**, aqua.
A.Q., achievement quotient. *Pedagogy.*
aq. bull., aqua bulliens.
aq. dest., aqua destillata.
Ar, argon. *Chem.*
Ar., Arabic; Aramaic; argentum (L., silver).
ar., arrived.
ar, aromatic. *Chem.*
A.R., Anna Regina (L., Queen Anne); analyzed reagent (*Chem. Brit.*); autonomous republic.
ar., argent (*Her.*); aromatic; arrival; arrive; arrives.
a.r., anno regni (L., in the year of the reign); —, *or* **A/R**, all risks. *Marine Ins.*
A.R.A., American Railway Association; American Relief Administration; Associate of the Royal Academy.
Arab., Arabic.
arach., arachnology.
Aram., Aramaic.
A.R.A.M., Associate of the Royal Academy of Music. *Brit.*
ARC, **A.R.C.**, American (National) Red Cross.
A.R.C.E., Academical Rank of Civil Engineers.
Arch., Archbishop; Archibald.
arch., archaic; archaism; archery; archipelago; architect; architectural; architecture.
archaeol., archaeology.
Archd., Archdeacon; Archduke.
Archit., architecture.
Archt., architect.
A.R.C.M., Associate of the Royal College of Music. *Brit.*
A.R.C.S., Associate of the Royal College of Science; Associate of the Royal College of Surgeons. *Brit.*
arg., arguendo; argent (*Her.*); argentum.
Arg. Rep., Argentine Republic.
A.R.I.B.A., Associate of the Royal Institute of British Architects.
arith., arithmetic; arithmetical.
Ariz., Arizona.
Ark., Arkansas.
Arm., Armenian; Armoric.
arm., armature.
Ar.M., Architecturae Magister (L., Master of Architecture).
Armor., Armoric.
Arn., Arnold; Arnott.
A.R.P., Associated Reformed Presbyterian.
A.R.R., Anno Regni Regis, *or* Reginae (L., in the year of the King's, *or* Queen's, reign).
arr., arranged; arrangements; arrival, *or* arrivals; arrive, *or* arrives; arrived.
ars., arsenal.
A.R.S.A., Associate of the Royal Scottish Academy; Associate of the Royal Society of Arts.
A.R.S.L., Associate of the Royal Society of Literature.
A.R.S.S., Antiquariorum Regiae Societatis Socius (L., Fellow of the Royal Society of Antiquaries).
Art., Arthur.
art., article; artificial; artillery; artist.
Arth., Arthur.
arts., articles.
Arty., Artillery.
A.R.U., American Railway Union.

M.S.Agr., Master of Scientific Agriculture.
M.Sc., Master of Science.
M.S.(Cer.E.), Master of Science in Ceramic Engineering.
M.S.C.P., **m.s.c.p.**, mean spherical candle power.
M.Sc.Tech., Magister Scientiae Technicae (L., Master of Technical Science).
M.S.D., Master of Scientific Didactics.
M.S.F., Master of Science in Forestry.
Msgr., monsignor.
M.S.H., Master of Staghounds.
M. S. in C. E., Master of Science in Civil Engineering.
M. S. in Ch. E., Master of Science in Chemical Engineering.
M. S. in E. E., Master of Science in Electrical Engineering.
M. S. in M. E., Master of Science in Mechanical Engineering.
m.s.l., mean sea level.
m.-sopr., mezzo-soprano.
MSS., **mss.**, manuscripts.
Ms-Th, mesothorium. *Chem.*
M.T., metric ton.
Mt., **mt.**, mount; mountain.
mtg., meeting; mortgage.
mtgd., mortgaged.
mtge., mortgage.
M.Th., Master of Theology.
mth., month.
mtl., material.
mtn., mountain.
Mt. Rev., Most Reverend.
mts., mountains.
Mu, murium. *Chem.*
mult., multiple.
mun., municipal.
mus., museum; music; musical; musician.
Mus.B., **Mus.Bac.**, Musicae Baccalaureus (L., Bachelor of Music).
Mus.D., **Mus.Doc.**, **Mus. Doct.**, **Mus.Dr.**, Musicae Doctor (L., Doctor of Music).
Mus.M., Musicae Magister (L., Master of Music).
mut., mutilated; mutual.
M.V., Medicus Veterinarius (L., Veterinary Physician) (*U.S.*). — *or* **m.v.**, muzzle velocity; mezza voce.
mv, millivolt.
m.v., mean variation.
M.V.O., Member of the (Royal) Victorian Order.
M.V.Sc., Master of Veterinary Science.
M.W., Most Worshipful; Most Worthy.
M.W.A., Modern Woodmen of America.
M.W.G., music-wire gauge.
M.W.G.C.P., Most Worthy Grand Chief Patriarch.
M.W.G.M., Most Worthy Grand Master; Most Worshipful Grand Master.
M.W.P., Most Worthy Patriarch.
M.W.V., Mexican War Veteran.
mycol., mycological; mycology.
mythol., mythological; mythology.
Mx., Max; Maximilian; Middlesex.
mxd., mixed.
My., May. *Cataloguing.*
myg., myriagram.
myl., myrialiter.
mym., myriameter.
myst., mysteries.
myth., mythology; mythological.

N, nitrogen (*Chem.*); not (hot-pressed paper); (Avogadro)- number (*Phys. Chem.*).
N, **N.**, **n.**, north; northern.
N., Nancy, Nathaniel, Nicholas, and other proper names; Nationalist; Norse; Novellae (*Rom. Law*); November; Numerius; perhaps nupta (L., bride) in the marriage service. — *or* **n.**, name (in catechism and baptismal service); navy; nimbus; nomen (L., name); nonae (L., nones); noon; normal (strength solution) (*Chem.*); novus (L., new).
N., Nancy. *Cataloguing.*
N., Nicholas; Nicolas; Nicolaus; Nicole. *Cataloguing.*
n., nail; nails; natus (L., born), navigating; navigation; nephew; neuter; new; nominative; not (*Nav. Wigwagging*); note; notes; noun; number; principal quantum number.
n, refractive index.
Na, natrium (sodium). *Chem.*
N.A., National Academician, *or* Academy; National Army; Nautical Almanac; North America, *or* American. — *or* **n.a.**, numerical aperture (*Micros.*).
N/A, no advice. *Bank.*
na., nail; nails.
n/a, no account; nonacceptance. *Bank.*
N.A.A., National Aeronautic Association.
N.A.D., National Academy of Design.
N. Af., North Africa.
Nah., Nahum.
N. Am., North America.
N. & Q., Notes and Queries. *Brit.*
Nap log, see LOGARITHM, in Vocabulary.
N. Arch., Naval Architect.
N.A.S., National Academy of Sciences. *U.S.*
N.A.S.E., National Academy of Stationary Engineers.
Nat., Nationalist.
Nats., Nationalists.
Nat., Natal; Nathan.
nat., national; native; natural; naturalist.
Nath., Nathanael; Nathaniel.
nat. hist., natural history.
Natl., Nathanael; Nathaniel.
natl., national.
natlog, see LOGARITHM, in Vocabulary.
N.A.T.M.A., National Association of Teachers of Marketing and Advertising.
nat. phil., natural philosophy.
naut., nautical.
nav., naval; navigable; navigation.
Nav. Const., Naval Constructor.
navig., navigation; navigator.
Nb, niobium. *Chem.*
Nb., nimbus.
N.B., New Brunswick; North Britain, *or* British. — *or* **n.b.**, nota bene (L., note well).
n.b., new boilers; northbound.
NbE, north by east.
NbW, north by west.
NC, Navy-Curtiss seaplane.
N.C., New Church; North Carolina. — *or* **n.c.**, nitrocellulose.
N.C.O., noncommissioned officer.
Nd, neodymium. *Chem.*
N.D., North Dakota; Notre Dame.
N.D., **n.d.**, no date.
N. Dak., North Dakota.
NE, **N.E.**, **n.e.**, northeast.
Ne, neon. *Chem.*
N.E., Naval Engineer; New England; Northeastern (Postal District, London). — *or* **N/E**, no effects (*Banking*).
N.E.A., National Education Association. *U.S.*
N E & B., new engines and boilers.
NEbE, northeast by east.
NEbN, northeast by north.
Nebr., **Neb.**, Nebraska.
NEC, National Emergency Council.
N. E. Code, National Electrical Code. *U.S.*
N.E.D., New English Dictionary (the Oxford English Dictionary).
neg., negative; negatively.
Neg. Ins., negotiable instrument.
Neh., Nehemiah.
n.e.i., non est inventus.
nem. con., nemine contradicente.
nem. diss., nemine dissentiente.
N. Eng., New England.
N.E.P., New Economic Policy. *Russia.*
N.E.R.A., National Emergency Relief Administration.
N.E.S., not elsewhere specified.
Neth., Netherlands.
neut., neuter.
Nev., Nevada.
Newf., Newfoundland.
New M., New Mexico.
New Test., New Testament.
NF., **N.F.**, Newfoundland; New French.
N.F., National Formulary (*Pharm.*); Newfoundland; Norman French. — *or* **n/f.**, no funds (*Bank.*).
n.f., neue folge (G., new series).
N.F.B.P.W.C., National Federation of Business and Professional Women's Clubs.
Nfld., Newfoundland.
Ng., Norwegian.
N.G., National Guard; New Granada; Noble Grand; not good (*Bank.*).
N.G., **n.g.**, no good.
n. gen., new genus.
NGr., **N.Gr.**, New Greek.
N.H., New Hampshire.
N.Heb., New Hebrides. — *or* **NHeb.**, New Hebrew.
NHG., **N.H.G.**, New High German.
N.H.P., nominal horsepower.
Ni, nickel. *Chem.*
N.I., Native Infantry.
Nicar., Nicaragua.
N.I.D., Naval Intelligence Division. *Brit.*
ni. pri., nisi prius.
NIRA, National Industrial Recovery Act.
N.J., New Jersey.
N.L., north latitude. — *or* **NL.**, New Latin.
n.l., new line (*Print.*); non licet; non liquet; non longe (L., not far).
N. Lat., north latitude.
NLB, National Labor Board.
N.L.F., National Liberal Federation. *Brit.*
N.M., New Mexico.
n/m, no mark. *Com.*
N. Mex., New Mexico.
NN, **N.N.**, names.
NNE, **N.N.E.**, **n.n.e.**, north-northeast.
N.N.R., New and Nonofficial Remedies. *Med.*
NNW, **N.N.W.**, **n.n.w.**, north-northwest.
No, norium. *Chem.*
No., Noah; north; northern.
No., **no.**, numero (L., by number); number.
N.O., natural order (*Bot.*); New Orleans.
N/O, no orders. *Bank.*
N.O.D., Naval Ordnance Department.
N.O.E., not otherwise enumerated.
N.O.H.P., not otherwise herein provided. *Com.*
N.O.I.B.N., not otherwise indexed by name. *Com.*
nol. pros., nolle prosequi.
nom., nomenclature; nominal. — *or* **nomin.**, nominative.
nom. nov., nomen novum.
nom. nud., nomen nudum.
non., nones (L., nonae).
noncom., noncommissioned officer.
non. cul., non culpabilis.
non obst., non obstante.
non pros., non prosequitur.
non seq., non sequitur.
nonsoc., nonsociety.
n.o.p., not otherwise provided (for).
nor., north; northern.
Nor., Norman; North; Norway; Norwegian.
Norf., Norfolk.
Nor(m). Fr., Norman-French.
Norm., Norman.
north., northern.
Northants., Northamptonshire.
Northum(b)., Northumberland.
Norw., Norway; Norwegian.
Nos., **nos.**, numbers.
N.O.S., not otherwise specified.
Notts, Nottinghamshire.
Nov., Novellae (L., Novels, of the Corpus Juris Civilis); November.
nov., novelist.
Nov. Sc., Nova Scotia.
N.P., nisi prius; no protest (*Bank.*); Notary Public.
np., neap. *Navig.*
n.p., new paragraph (*Print.*); no paging (of books so printed); no place (of publication).
n/p, net proceeds.
NPB, National Planning Board.
N.P.C., nisi prius cases.
N.P.D., North Polar Distance.
n. p. or d., no place or date. *Bibliography.*
n.p.t., normal pressure and temperature.
Nr., Nummer (G., number).
nr., near.
N.R.A., National Recovery Administration; National Rifle Association.
N.R.C.P., Nonresidential Conditional Purchase. *Australia.*
N.-S., Notre-Seigneur (F., Our Lord).
N.S., National Society; New School, Series, *or* Side; New Style (of dating, since 1752); North Sea; Nova Scotia; Numismatic Society. — *or* **n.s.**, nickel steel; not specified.
N/S, **N.S.F.**, not sufficient (funds). *Bank.*
N.S.A., National Skating Association.
N.S.I. (*or* **J.**) **C.**, Noster Salvator Iesus, *or* Jesus, Christus (L., Our Saviour Jesus Christ).
N.S.P.C.A., National Society for the Prevention of Cruelty to Animals. *U.S.*
N.S.P.C.C., National Society for the Prevention of Cruelty to Children.
N.S.P.F., **n.s.p.f.**, not specifically provided for. *Com.*
nstd., nested. *Com.*
N.S.W., New South Wales.
Nt, niton. *Chem.*
NT., **N.T.**, New Testament.
N.T., New Translation; Northern Territory (*Aust.*).
n.t., net ton; new terms. *Grain Trade.*
n.t.p., normal temperature and pressure; no title page (*Cataloguing*).
nt. wt., net weight.
n.u., name unknown.
num., numeral; numerals.
Num., **Numb.**, Numbers. (*O. Test.*).
numis., **numism.**, numismatic, *or* numismatics; numismatology.
N.U.R., National Union of Railwaymen. *Brit.*
N.U.W.S.S., National Union of Women's Suffrage Societies. *Brit.*
N.U.W.W., National Union of Women Workers. *Brit.*
N.V., New Version.
N.V.M., Nativity of the Virgin Mary.
NW, **N.W.**, **n.w.**, northwest; northwestern.
N.W., North Wales; Northwestern (Postal District, London).
NWbN, northwest by north.
NWbW, northwest by west.
N.W.T., Northwest Territories. *Can.*
N.Y., New York.
N.Y.C., New York City.
N.Y.H.S., New York Historical Society.
N.Z., **N. Zeal.**, New Zealand.

O, oxygen. *Chem.*
O., Olive, Oliver, Olivia, and other personal names; Ocean; October; Ohio; Ontario; Ordo (L., Order). (*Eccl.*) Oregon. — *or* **o.**, occidental; octavo; old; order; oriental; os (L., bone). (*Anat.*)
O.., Olivia. *Cataloguing.*
O:, Otto. *Cataloguing.*
o, ohm.
o-, ortho-. *Chem.*
o., octarius (L., pint) (*Pharm.*); off; only; optimus (L., best).
o.a., on account; over all.
O/a, **o/a**, on account of; our account.
o. and r., ocean and rail. *Transp.*
Ob., Obadiah.
O.B., ordered back. *Bank.*
ob., obiit; obiter (L., incidentally); oboe; obolus.
Obad., Obadiah.
obb., obbligato.
obdt., obedient.
O.B.E., Officer (of the Order) of the British Empire.
obj., object; objection; objective.
obl., oblique; oblong.
obs., observation; observatory; obsolete.
obsoles., obsolescent.
ob. s. p., obiit sine prole.
obstet., obstetrical.
obt., obedient; obiit.
O.B.U., One Big Union.
OBulg., **O.Bulg.**, Old Bulgarian.
Oc., **oc.**, ocean.
O.C., Officer Commanding; Official Classification (*Com.*); Old Carthusian; Old Catholic; Ordo Cisterciensium (L., Cistercian Order).
o.c., only child; opere citato (L., in the work cited).
o/c, old charter, *or* crop. — *or* **o/c.**, overcharge.
O. Cart., Ordo Cartusiensis (L., Carthusian Order).
Oct., Octavius; October.
oct., octavo.
Octa., Octavia.
OD., **O.D.**, Old Dutch.
O.D., Officer of the Day; ordinary seaman; Ordnance Department; overdraft, *or* overdrawn. — *or* **o.d.**, olive drab.
o/d, **o/d.**, on demand.
ODan., **O.Dan.**, Old Danish.
OE., **O.E.**, Old English.
o.e., omissions excepted.
O.E.D., Oxford English Dictionary.
O.E.S., Order of the Eastern Star.
O.E.T.A., Occupied Enemy Territory Administration.
OF., **O.F.**, Old French.
O.F., Odd Fellows.
o.f., oxidizing flame.
Off., Office. — *or* **off.**, officer.
off., offered; official; officinal.
off. nom., official nomenclature.
O.F.M., Order of Friars Minor.
O.Fr., Old French.
OFris., **O.Fris.**, Old Friesic.
O.F.S., Orange Free State.
OG, **O.G.**, ogee.
O.G., Officer of the Guard; Outer Guard; Outside Guard, *or* Guardian; original gum (*Philately*).
OGael., **O.Gael.**, Old Gaelic.
O.H.B.M.S., On His (Her) Britannic Majesty's Service.
OHG., **O.H.G.**, Old High German.
O.H.H.S., On His Highness's Service. *Philately.*
O.H.M.S., On His (Her) Majesty's Service.
OIr., **O.Ir.**, Old Irish.
OIt., **O.It.**, Old Italian.
O.K., see in Vocabulary.
Okla., Oklahoma.
Ol., Oliver; Olympiad.
O.L., Occupation License (*Queensland*); Officer (of the Order) of Leopold; overload (*Elec.*). — *or* **OL**, Old Latin.
ol., oleum.
Old Test., Old Testament.
oleo, oleomargarine. *Com.*
OLG., **O.L.G.**, Old Low German.
Olym., Olympiad.
O.M.C., Ordo Minorum Conventualium (L., Order of Conventional (Friars) Minor.
O.M., Old Measurement; Order of Merit (*Brit.*).
O. M. Cap., Ordo Minorum Capuccinorum (Order of Capuchin (Friars) Minor).
O.M.I., Oblate of Mary Immaculate.
O.M.S., Organization for the Maintenance of Supplies. *Brit.*
ON., **O.N.**, Old Norse.
ONF., **O.N.F.**, Old Norman French; Old North French.
Ont., Ontario.
O.O., Ordnance Officer.
O.P., Ordinis Praedicatorum (L., of the Order of Preachers, i.e., Dominicans). — *or* **o.p.**, observation post *or* posts; open policy; out of print; overproof.
O.P., **o.p.**, opposite prompt or prompter. *Theat.*
op., opera; operation; opposite; optime; opus.
op. cit., opere citato (L., in the work cited); opus citatum (L., the work cited).
opp., opposed; opposite.
opt., optative; optical; optician; optics; optional.
Opt.D., Doctor of Optometry.
Or., Oregon; oriental.
o.r., owner's risk. *Transp.*
ora., oratorio.
O.R.B., **o.r.b.**, owner's risk of breakage. *Transp.*
O.R.C., **o.r.c.**, owner's risk of chafing (*Transp.*).
O.R.C., Orange River Colony; Order of the Red Cross. — *or* **ORC**, Officers' Reserve Corps.
orch., orchestra.
ord., ordained; order; ordinal; ordinance; ordinary; ordnance.
o.r.d., owner's risk of damage. *Transp.*
o.r.det., owner's risk of deterioration. *Transp.*
ordn, ordnance.
Ord. Praem., Ordo Praemonstratensium (Premonstratensian Order).
Oreg., **Ore.**, Oregon.
O.R.F., **o.r.f.**, owner's risk of fire, or freezing. *Transp.*
org., organic; organized.
Org. Res., Organized Reserves.
orig., origin; original; originally.
Orl., Orlando.
o.r.l., owner's risk of leakage. *Transp.*
ornith., **ornithol.**, ornithological; ornithology.
O.R.S., **o.r.s.**, owner's risk of shifting. *Transp.*
O.R.W., **o.r.w.**, owner's risk of becoming wet. *Transp.*
Os, osmium. *Chem.*
OS., **O.S.**, Old Saxon.
O.S., Old School; Old Series; Old Side; Outside Sentinel. — *or* **O/S**, *or* **o/s**, Old Style (see CALENDAR, in Vocab.).
o.s., on spot (*Com.*); ordinary seaman.
o/s, oro sellado.
O.S.A., Ordo Sancti Augustini (Order of St. Augustine).
o. s. and d., over, short, and damaged. *Transp.*
O.Sax., Old Saxon.
O.S.B., Ordo Sancti Benedicti (Order of St. Benedict).
Osc., Oscar.
osc., oscillating; oscillator.
O.S.D., Ordo Sancti Dominici (Order of St. Dominic).
O.S.F., Order of St. Francis.
OSl., **O.Sl.**, Old Slavonic.
o.s.t., ordinary spring tides.
Osw., Oswald.
O.T., Old Testament. — *or* **o.t.**, on track. *Transp.*
o.t., overtime.
O.T.C., Officers' Training Camp, or Corps.
O.Teut., Old Teutonic.
O.T.S., Officers' Training School.
ott., ottava. *Music.*
O.U.A., Order of United Americans.
O.U.A.M., Order of United American Mechanics.
o.v., oil of vitriol; over voltage.
overt., overture. *Music.*
Oxf., **Ox.**, Oxford.
Oxf., Oxfordshire.
Oxon., Oxonia (L., Oxford, Oxfordshire); Oxoniensis.
Oxonien., Oxoniensis (L., of Oxford).
oz., ounce; ounces.
ozs., ounces.

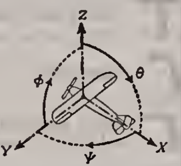
P, pawn (*Chess*); phosphorus (*Chem.*); power (*Elec.*); predicate (*Logic*); pressure (*Phys.*); Priestly Code (*Bib.*).
P., Paul, Peter, Priscilla, and other personal names; Papa (L., Pope); Paris; Pasch (L., Easter Term) (*Law*); Publius. — *or* **p.**, pastor, pater (L., father); père (F., father); pontifex; populus (L., people); post; president; priest; prince; probate (court); proconsul; prompter (*Theat.*).
p., page, *or* pages; part; participle; partim (L., in part); past; pawn (*Chess*); pectoral; penny; per (L., by); perch; percussion (fuse); perishable; perpetuus (L., uninterrupted); peseta; peso; piano (It., softly) (*Mus.*); pie (coin of India); pint; pipe; pius (L., holy); plate; pole; pondere (L., by weight); population; post (L., after); premolar (in dental formulas); primus (L., first); pro (L., for); professional.
P.., Pauline. *Cataloguing.*
P:, Peter; Pierre. *Cataloguing.*
p-, para-. *Chem.*
P1, Law of Holiness. *Bib.*
Pa, protoactinium. *Chem.*
Pa., Pennsylvania.
P.A., Passenger Agent; Post Adjutant; Prothonotary Apostolic; Purchasing Agent. — *or* **P/A.**, **p.a.**, particular average (*Marine Ins.*).
P/A, private account (*Bookkeeping*).
P.A., **P/A**, power of attorney.
p.a., participial adjective; per annum; pro anno (L., for the year).
Pac., **Pacif.**, Pacific.
p. ae., partes aequales (L., equal parts).
paint., painting.
Pal., Palestine.
pal., paleontology.
paleob., **paleobot.**, paleobotany.
paleog., paleography.
paleontol., **paleon.**, **paleont.**, paleontology.
pam., **pamph.**, pamphlet.
Pan., Panama.
P. and L., profit and loss.
P. and O., Peninsular and Occidental (Steamship Company); Peninsular and Oriental (Steamship Company).
P. and S., (College of) Physicians and Surgeons (New York City).
pap., paper.
par., paragraph; parallel; parenthesis; parish.
Para., Paraguay.
paren., parenthesis.
parens., parentheses.
parl., parliament; parliamentary.
Parl. Agt., Parliamentary Agent.
pars., paragraphs.
part., participle; particular; particularly.
part. adj., participial adjective.
Pas., Paschal Term. *Eng. Law.*
pass., passenger; passim; passive.
Pas. T., Paschal Term. *Eng. Law.*
Pat., Patrick.
pat., patent; patented; pattern.
patd., patented.
path., **pathol.**, pathological; pathology.
Pat. Off., Patent Office.
P.A.U., Pan American Union.
P/Av., particular average.
P.A.Y.E., pay as you enter. *Transp.*
Payr., Paymaster.
payt., payment.
Pb, plumbum (lead). *Chem.*
P.B., Pharmacopoeia Britannica (L., British Pharmacopoeia); Philosophiae Baccalaureus (L., Bachelor of Philosophy); Plymouth Brethren; Prayer Book; Primitive Baptist, *or* Baptists.
P. Bor., Pharmacopoeia Borussica (L., Prussian Pharmacopoeia).
P.C., **PC**, Panama Canal.
P.C., Parish Council, *or* Councilor; Past Commander; Patres Conscripti; Perpetual Curate; Philippines Constabulary; Police Constable; Post Commander; Principal Chaplain, *or* Conductor; Privy Council, *or* Councilor.
P/C, per cent. — *or* **p/c**, petty cash; prices current.
pc., piece; prices.

ARBITRARY SIGNS AND SYMBOLS

Cross references in small capitals refer to entries in the main *Vocabulary*.
Symbols for the following may be found below (in this section) when the cross reference is in italic type, in the *Vocabulary* when the cross reference is in small capitals, or in the *Introduction* as indicated.

Algebra. See *Mathematics*, below.
Alloys. See *Money and Coins*, below.
Alphabets. See ALPHABET, *n.*, 1; ANGLO-SAXON ALPHABET.
Apothecaries' Weights and Measures. See *Medicine*, below.
Astrology. See *Astronomy*, below. See also ASPECT, *n.*, 7.
Botany. See *Biology and Botany*, below.
Calculus. See *Mathematics*, below.
Coins. See *Money and Coins*, below.
Commerce. See *Business and Commerce*, below; *Ships and Shipping*, below.
Engineering, Hydraulics, Illumination. See *Physics, Engineering, Weights, and Measures*, below.
Locomotives. See LOCOMOTIVE.
Measures. See *Medicine*, below; *Physics*, etc., below; *Units*, under *Mathematics*, below; see also *Table of Abbreviations*.
Metals. See *Money and Coins*, below.
Meteorology. See *Weather*, below.
Philately. See *Stamps*, below.
Poetry, Prosody. See PROSODY; ALCAIC; CAESURA; CATALEXIS; IRRATIONAL, *adj.*, **c**; QUANTITY, *n.*, 14; BREVE, *n.*, 2 **a**: hexameter; octameter.
Prescriptions. See *Medicine*, below.
Pronunciation. See *Pronunciation* in the Introduction.
Radio. See *Electricity and Radio*, below.
Topography. See *Maps*, below.
Type. See TYPE, BRADLEY TEXT, CASLON, CHAUCER TEXT, FRAKTUR, JENSON, MODERN, *n.*, 3, etc.
Weights. See *Medicine*, below; *Physics*, etc., below; *Units*, under *Mathematics*, below; see also *Table of Abbreviations*.

AERONAUTICS



- g Acceleration due to gravity.
- V Air speed.
- V_i Air speed, indicated.
- h Altitude.
- α Angle of attack.
- ϵ Angle of downwash.
- θ Angle of pitch.
- ϕ Angle of roll or bank.
- δ Angle of set of control surfaces (with appropriate subscripts for different surfaces).
- β Angle of stabilizer setting with reference to lower wing.
- i_t Angle of stabilizer setting with reference to thrust line.
- i_w Angle of wing setting (angle between the wing chord and the thrust line).
- ψ Angle of yaw.
- ω Angular velocity.
- S Area, general.
- S_w Area of wings. Areas of other parts are similarly indicated by appropriate subscripts.

Axes of aircraft (left-handed):
- X Longitudinal. See AXIS, 5.
- Y Lateral. See AXIS, 5.
- Z Normal. See AXIS, 5.

- H Ceiling.
- c.g. Center of gravity.
- C_g Center-of-gravity coefficient (with respect to the mean chord).
- c.p. Center of pressure.
- C_p Center-of-pressure coefficient, that is, the ratio of the distance of the center of pressure from the leading edge to the chord length.
- c Chord length.
- r Climb, rate of.
- C Coefficient, absolute; — usually with subscript.

For special coefficients, see *Center-of-gravity coefficient*, above; *Center-of-pressure coefficient*, above; *Damping coefficient*, *Drag*, *Force*, *Lift*, *Moments*, *Power coefficients*, *Thrust coefficients*, *Torque coefficients*, *Viscosity*, below.

- λ Damping coefficient.
- ρ Density, air (mass per unit volume).
- σ Density, relative to standard air density.
- γ Dihedral.

Displacements:
- x Longitudinal.
- y Lateral.
- z Normal.

Angular:
- ϕ In roll.
- θ In pitch.
- ψ In yaw.

- f Distance from center of gravity to center of pressure of horizontal tail surface.
- D Drag.
- C_D Drag, absolute coefficient of.
- C_{Di} Drag, coefficient of induced.
- C_{Dp} Drag, coefficient of parasite (structural resistance). See DRAG, *n.*, 11.
- C_{Do} Drag, coefficient of profile.
- D_i Drag, induced.
- D_p Drag, parasite (structural resistance).
- D_o Drag, profile.
- q Dynamic (or impact) pressure, $\frac{1}{2}\rho V^2$.
- η Efficiency.
- F Force.
- C Force, cross-wind.
- C_c Force, cross-wind, absolute coefficient.

Forces (parallel to axes):
- X Longitudinal.
- Y Lateral.
- Z Normal.

- G Gap.
- h Height.
- Φ Helix angle, effective.
- HP Horsepower.
- V' Indraft (inflow velocity).
- ν Kinematic viscosity.
- l Length, or linear dimension.
- L Lift.
- C_L, Lift, absolute coefficient of.
- n Load factor.
- w Loading, specific (with appropriate subscripts for different surfaces).
- w_p Loading, power; weight per unit power.
- w_s Loading, wing; weight per unit area.
- λ Logarithmic increment or decrement of amplitude.
- m Mass.

Moments:
- L Rolling.
- M Pitching.
- N Yawing.

Moments, absolute coefficients of:
- C_L; Rolling.
- C_M Pitching.
- C_N Yawing.

Moments of inertia about axes:
- A Longitudinal.
- B Lateral.
- C Normal.

- p Pitch, usually with a subscript.
- p_a Pitch, aerodynamic.
- p_e Pitch, effective.

Many other kinds of pitch are similarly indicated by appropriate subscripts.

- P Power.
- C_P, C_P', C_P'' Power coefficients.
- p Pressure, general.
- D Propeller diameter.
- η (formerly π). Propeller efficiency.
- N Propeller rate of rotation.
- K Radius of gyration.
- K_A Radius of gyration about the longitudinal axis.
- K_B Radius of gyration about the lateral axis.
- K_C Radius of gyration about the normal axis.
- R Resultant force.
- n Revolutions per second.
- N Revolutions per minute.
- V_s Slip-stream velocity.
- b Span.
- V Speed.
- D_p Structural resistance (parasite drag.)
- T Thrust.
- C_T, C_T', C_T'' Thrust coefficients.
- Q Torque.
- C_Q, C_Q', C_Q'' Torque coefficients.

V Velocities:

Angular:
- p Roll.
- q Pitch.
- r Yaw.

Linear (component along axis):
- u Roll.
- v Pitch.
- w Yaw.

- μ Viscosity, coefficient of.
- W Weight.

ASTRONOMY

Astronomical symbols below are grouped according to meaning. Note that the same symbol may have various meanings, depending partly upon the context in which it occurs. Thus, ☉ may mean that two heavenly bodies differ 72° in right ascension, or it may signify the longitude of the sun, or simply the sun without reference to longitude. Similarly, ☽ may mean the moon in the first quarter, or the moon's longitude, or simply the moon.

1. SUN, MOON, AND STARS

☉ *or* ☉	The Sun; Sunday.	●	New Moon.
☄	Comet.	☽, ◐, ☽, *or* ☽	First Quarter.
✳ *or* ✳	Fixed Star.	○ *or* ☺	Full Moon.
◐, ☾, *or* ☽	The Moon; Monday.	☾, ◑, ☾, *or* ☾	Last Quarter.

NOTE. — The sign ☉ originally represented a buckler with its boss, an emblem of the sun.

2. PLANETS

(*a*) MAJOR PLANETS, in the order of their nearness to the sun

☿	Mercury; Wednesday.	♄ *or* ♄	Saturn; Saturday.
♀	Venus; Friday.	⛢, ♅, *or* ♅	Uranus.
⊕, ⊖, *or* ♁	The Earth.	♆, ♆, *or* ♆	Neptune.
♂	Mars; Tuesday.	♇	Pluto.
♃	Jupiter; Thursday.		

NOTE. — It is believed that these symbols at first represented: ☿, the caduceus of Mercury, or, according to some, his head and winged cap; ♀ a looking glass, an attribute of Venus; ⊖, the earth and its equator; ⊕, the same, with the addition of a meridian line, or, as some think, the four quarters of the globe; ♁, the globe and cross placed in the hands of sovereigns as a symbol of power or dominion; ♂, the head, helmet, and nodding plume of a warrior, or, more probably, a shield and spear, the two chief instruments of ancient warfare; ♃, a rude and hieroglyphical representation of an eagle — the "bird of Jove" — with expanded wings, or the initial letter of Ζεύς (*Zeus*), with a line drawn through it as a mark of abbreviation; ♄, an ancient scythe or sickle, the emblem of Saturn, the god of time; ♅, the initial letter of *Herschel*, the discoverer of Uranus, with a planet suspended from the crossbar. ⛢ is a sign made up of that for the sun (☉), and a part of that for Mars (♂). (Among the old chemists, gold was symbolically represented by the sign ☉, and iron by ♂. When Uranus was discovered, the German astronomers invented the sign ⛢ to denote not only the new planet, but also the then recently discovered metal platinum, which was at that time called *white gold*, and which, in its native state, is almost always combined with *iron*.) ♆, a trident is the emblem of Neptune, the god of the sea. ♇ is simply a monogram made up of P and L, the first two letters of Pluto.

(*b*) ASTEROIDS, *or* MINOR PLANETS

Modern Symbol	Old Symbol	Name	Modern Symbol	Old Symbol	Name
①	⚳ *or* ⚳	Ceres	③	⚵ *or* ⚵	Juno
②	⚴ *or* ⚴	Pallas	④	⚶ *or* ⚶	Vesta

Signs devised for other asteroids have never been much used, and all are now usually designated by numbers within circles. See ASTEROID, in the *Vocabulary*.

3. SIGNS OF THE ZODIAC

Spring Signs	1. ♈ Aries, *the Ram*.	Autumn Signs	7. ♎ Libra, *the Balance*.
	2. ♉ Taurus, *the Bull*.		8. ♏ Scorpio, *the Scorpion*.
	3. II, □, *or* ♊ Gemini, *the Twins*.		9. ♐ *or* ♐ Sagittarius, *the Archer*.
Summer Signs	4. ♋ *or* ♋ Cancer, *the Crab*.	Winter Signs	10. ♑ *or* ♑ Capricorn, *the Goat*.
	5. ♌ Leo, *the Lion*.		11. ♒ *or* ♒ Aquarius, *the Water Bearer*.
	6. ♍ *or* ♍. Virgo, *the Virgin*.		12. ♓ *or* ♓ Pisces, *the Fishes*.

NOTE. — The sign ♈ represents the horns of a ram; ♉, the head and horns of a bull; II, the ancient statues of Castor and Pollus, which consisted of two pieces of wood joined together by two crosspieces; ♋, the claws of a crab; ♌, a corruption of the Greek letter Λ, the initial of Λέων (*Leōn*), a lion, or, less probably, a representation of a lion's tail; ♍, a corruption of παρ (*par*) for παρθένος (*parthenos*), the Greek word for *virgin*; ♎, a rude picture of a balance; ♏, the legs and tail of a scorpion, or, according to some, the tail only, including the sting and two or three of the joints nearest to it; ♐, an arrow just leaving the bow, of which a small portion is to be seen at the bottom of the character; ♑, a ligature combining the letters τρ (*tr*) of the Greek word τράγος (*tragos*), a goat; ♒, waves of water; ♓, two fish tied together with a string.

4. ASPECTS AND NODES

- ☌ Conjunction; — indicating that the bodies have the same longitude, or right ascension; as, ☿ ☌ ☉; that is, Mercury is in conjunction with the sun.
- ✳ Sextile; — indicating a difference of 60° in longitude, or right ascension.
- ☾, C, *or* ☉ Quintile; — indicating a difference of 72° in longitude, or right ascension. *Rare.*
- □ Quadrature; — indicating a difference of 90° in longitude, or right ascension.
- △ Trine; — indicating a difference of 120° in longitude, or right ascension.
- ☍ Opposition; — indicating a difference of 180° in longitude, or right ascension; as, ☍ ♆ ☉, opposition of Neptune to the sun.
- ☊ Ascending Node; — called also *dragon's head*. See DRAGON'S HEAD, 2, in *Vocabulary*.
- ☋ Descending Node; — called also *dragon's tail*. See DRAGON'S TAIL, 1, in *Vocabulary*.

NOTE. — In the sign ☌, the circle represents the zodiac, or the heavens, and the little mark at the top the meeting of two bodies in the same point or place; in the sign ☍, the circles touch at points opposite to each other, or 180 degrees apart; the signs ✳, □, △, are symbolical of the derivation of the words *sextile*, *quadrature*, *trine*, from the Latin words *sex*, six, *quattuor*, four, *tres*, three, being figures composed of six, of four, and of three lines respectively; the signs ☊ and ☋ represent a dragon, and originated in the fancy of the ancient astronomers, who saw in the deviation from the ecliptic made by a planet in passing from one node to another a figure like that of a dragon, the belly being where the planet has the greatest latitude, and the head and tail the points of intersection with the ecliptic.

Symbol	Name of Quantity
C	Permittance.
K or *ε*	Permittivity.
θ or *φ*	Phase difference, angular.
P or *p*	Power.
Q or *q*	Quantity, electric.
X or *x*	Reactance.
ℛ	Reluctance.
ν	Reluctivity.
R or *r*	Resistance.
ρ	Resistivity.
L	Self-inductance.

Symbol	Name of Quantity
n	Speed of rotation.
b	Susceptance.
k or *κ*	Susceptibility to magnetism.
γ	The unit of intensity of magnetic field, 0.000 01 gauss (see GAUSS).
v or *V*	Volt.
E, *e*, *V*, or *v*	Voltage.
va or *VA*	Volt-ampere.
VC	Volt-coulomb.
w or *W*	Watt.
whr or *Wh*	Watt-hour.

For symbols of quantities not specifically or exclusively electrical, such as *work*, *horsepower*, etc., see the section headed *Physics, Engineering, Weights, and Measures*, below.

ELECTRICITY AND RADIO

- Air Break Switch, Horn Gap.
- Air Circuit Breaker.
- Alternating-Current Generator or Motor.
- Ammeter.
- Ampere-Hour Meter.
- Antenna.
- Arc.
- Battery.
- Battery (positive electrode indicated by the long line).
- * Condenser, Fixed.
- Condenser, Fixed, Shielded.
- Condenser, Variable.
- Condenser, Variable (moving plate indicated).
- Condenser, Variable, Shielded.
- Counterpoise.
- Crystal Detector.
- Direct-Current Generator or Motor.
- Direct-Current Generator or Motor with Shunt and Series Field.
- Disconnecting Switch — Basic Symbol.
- Double-Throw Switch.
- Frequency Meter.
- Fuse.
- Galvanometer.
- Ground.
- Inductor.
- Inductor, Variable. *
- Inductor, Adjustable (by steps).
- Inductor, Iron Core.
- Jack.
- Key.
- Knife Switch, Single Throw.
- Lamp.
- Lightning Arrester — Basic Symbol.
- Loop Antenna.
- Loud Speaker.
- Microphone (Telephone Transmitter).
- Oil Circuit Breaker.
- Phototube.
- Piezo-Electric Plate.
- Rectifier Tube, Full-Wave (with cold cathode).
- Rectifier Tube, Half-Wave (with cold cathode).
- Resistor.
- * Resistor.
- * Resistor, Variable.
- * Resistor, Adjustable (by steps).
- Rheostat.
- Spark Gap, Rotary.
- Spark Gap, Plain.
- Spark Gap, Quenched.
- Telephone Receiver.

THERMIONIC TUBES.

- Diode (Half-Wave Rectifier Tube) (with directly heated cathode).
- Full-Wave Rectifier Tube (with directly heated cathode).
- Triode (with directly heated cathode).
- Triode (with indirectly heated cathode).
- Tetrode (with directly heated cathode).
- Screen-Grid Tube (with directly heated cathode).
- Screen-Grid Tube (with indirectly heated cathode).
- Pentode (with directly heated cathode).
- Thermoelement.

* Preferred symbol for radio purposes.

- * Transformer, Air Core.
- * Transformer, Iron Core.
- * Transformer, Variable Coupling.
- * Transformer, Variable Coupling (moving coil indicated).
- Voltmeter.
- Wattmeter.
- Wires, Joined.
- Wires, Crossed, not Joined.

* Preferred symbol for radio purposes.

HIGHWAY

A red light means *stop;* a yellow light means *proceed with caution;* and a green light means *go*. Other symbols vary somewhat from place to place. The following, usually painted on small signboards by the roadside, are widely used:

- Ascent to the left.
- Ascent to the right.
- Crossroad to the left.
- Crossroad to the right.
- Descent to the left.
- Descent to the right.
- Double crossroad.
- Double left curve.
- Double right curve.
- Intersection of two main roads.
- Left angle.
- Left angle with local road ahead.
- Left angle, local road to the right.
- Left curve.
- Left curve with local road to the left.
- Left curve with local road to the right.
- Railroad crossing.
- Right angle.
- Right angle with local road ahead.
- Right angle, local road to the left.
- Right curve.
- Right curve with local road to the left.
- Right curve with local road to the right.
- Underpass.

MATHEMATICS

NOTE. — Unless otherwise specified cross references in small capitals refer to entries in the main vocabulary.

NUMERALS

Arabic	Greek	Roman	
0			Naught, zero.
1	αʹ	I	One.
2	βʹ	II	Two.
3	γʹ	III	Three.
4	δʹ	IV *or* IIII	Four.
5	εʹ	V	Five.
6	*F*ʹ *or* ςʹ	VI	Six.
7	ζʹ	VII; formerly S	Seven.
8	ηʹ	VIII *or* IIX	Eight.
9	θʹ	IX *or* VIIII	Nine.
10	ιʹ	X	Ten.
11	ιαʹ	XI	Eleven.
12	ιβʹ	XII	Twelve.
13	ιγʹ	XIII *or* XIIV	Thirteen.
14	ιδʹ	XIV *or* XIIII	Fourteen.
15	ιεʹ	XV	Fifteen.
16	ιςʹ	XVI	Sixteen.
17	ιζʹ	XVII	Seventeen.
18	ιηʹ	XVIII *or* XIIX	Eighteen.
19	ιθʹ	XIX *or* XVIIII	Nineteen.
20	κʹ	XX	Twenty.
30	λʹ	XXX	Thirty.
40	μʹ	XL *or* XXXX	Forty.
50	νʹ	L	Fifty.
60	ξʹ	LX	Sixty.
70	οʹ	LXX; formerly S	Seventy.
80	πʹ	LXXX *or* XXC	Eighty.
90	ϙʹ *or* ϟʹ	XC *or* LXXXX	Ninety.
100	ρʹ	C	One hundred.
200	σʹ	CC	Two hundred.
300	τʹ	CCC	Three hundred.
400	υʹ	CD *or* CCCC	Four hundred.
500	φʹ	D *or* IƆ	Five hundred.
600	χʹ	DC *or* IƆC	Six hundred.
700	ψʹ	DCC *or* IƆCC	Seven hundred.
800	ωʹ	DCCC *or* IƆCCC	Eight hundred.
900	ϡʹ *or* ϡʹ	CM, DCCCC *or* IƆCCCC	Nine hundred.
1,000	͵α	M *or* CIƆ	One thousand.
2,000	͵β	MM *or* CIƆCIƆ	Two thousand.
1,000,000		M̄	One million.
1871		MDCCCLXXI	Eighteen seventy-one.
1934		MCMXXXIV	Nineteen thirty-four.

For *billion*, *trillion*, etc., and for differences between the English and American systems of numeration, see NUMERATION, 2, *Note*.

Hebrew letters also have been used with numerical significance, as ט (teth) for 9, ס (samekh) for 60, ר (resh) for 200, and שׂ (sin) for 300, but no attempt is made here to cover numerical systems that have had no currency in English books.

MONEY AND COINS

COINS

For par values of coins mentioned below, see COIN, *Table*. Coins not mentioned below are usually represented by simple abbreviations; as, RM. for reichsmark, fr. for franc. For these, see the *Table of Abbreviations*.

$ *or* $ Dollar, or dollars of the United States, Canada, Hong Kong, Straits, British West Indies, etc.; peso, or pesos, of Argentina, Chile, Colombia, Mexico, Paraguay, Uruguay, etc.; escudo of Portugal; lempira of Honduras; milreis of Brazil.

¢ Cent, or cents; as, 12¢; 33¢.

₱ Peso, or pesos. *Philippines.*

Ps Pesos. *Obs.*

/ *or* s. Shilling, or shillings (British); as, 1/6 = 1s. 6d.; 2/3 = 2s. 3d. The same symbol is sometimes used in separating other denominations of money.

S Schilling of Austria.

£ Pound, or pounds (sterling); as, £1; £45.

£ E *or* LE Egyptian pound or pounds.

£ P Pound, or pounds, of Palestine.

Lp. or £p. Peruvian pound.

£ T Turkish pound or pounds.

R Rupee.

Rs. Rupees. India.

: Conto, or contos.

· Thousand contos.

o/s Spanish *oro sellado*, minted gold; — used in Latin American countries.

m/n Spanish *moneda nacional*, national money; — used in Latin American countries for the national paper money.

m$n Peso or pesos of national paper money.

₡ Colon.

Kč Koruna.

¥ or Ұ Yen.

Origins. — The origin of $ has been variously accounted for; but it has been shown (by Florian Cajori) from early manuscripts to be the result of evolution, independently in different places, of the Mexican sign Ps for pesos or piastres or pieces of eight by lowering of the letter *s* upon the letter *p*. Written after numerals by Spanish Americans and before numerals, like £, by English colonists, it was widely used before the adoption of the United States dollar in 1785. The sign / is thought to have been originally a capital S (written thus, ʃ), standing for the word *shillings*. The character £, for pounds sterling, is merely a capital *L* with a mark drawn across it, and represents the corresponding Latin word *Librae*.

Fractions and Multiples. — Many countries use the decimal system to indicate fractional parts of the basic coin. For example, in the United States a period separates the basic coin from its hundredth part; as, $5.98, five dollars and ninety-eight cents. Most countries use the comma (and some only a space) to separate the basic coin from its fractional part. Some place the symbol ($) between the basic coin and its fraction; as, in Brazil 2$356, two milreis and three hundred fifty-six reis. Some use the colon to separate the basic coin from a larger coin, its multiple; as, in Portugal, 8:245$27, eight contos, two hundred forty-five escudos, and twenty-seven centavos. The period is then used to separate thousand contos from contos. See CONTO.

METALS AND ALLOYS USED IN COINS

Æ ÆS (Lat. *aes*), bronze, copper. Also, as *abbr.*, AE.

AR ARGENTVM (Lat. *argentum*), silver. Also, as *abbr.*, AR.

AV AURUM (Lat. *aurum*), gold. Also, as *abbr.*, AV.

EL (Lat. *electrum*), electrum (sense 2).

NK Nickel.

PL (Lat. *plumbum*), lead.

℞ The *reverse* of a coin.

MUSIC

Cross references in small capitals refer to entries in the main vocabulary.

PITCH AND INTERVALS

Among the many ways of representing successive pitches, the simplest is by means of the letters *a, b, c, d, e, f,* and *g*. For detailed explanation of this system and the vibration rates represented, see 4th PITCH, 19.

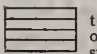
— between letters often indicates a whole step.

◡ between letters often indicates a half step.

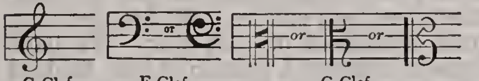
+ between letters often indicates a step and a half. See SCALE.

A simple interval between two tones is sometimes represented, esp. in theoretical discussions, by the ratio between their vibration rates; as 2 : 1, an octave; 3 : 2 a fifth; 5 : 4, *etc.* See INTERVAL, *n.*, 8.

For practical purposes, music is usually written with notes upon staffs.



Staff; — the five lines which, together with their attendant spaces, are used to represent pitches. The extent of the staff may be increased either above or below by the addition of short lines called *ledger lines*. The lines and spaces of the staff are often referred to as *degrees*. See KEYBOARD, 1.



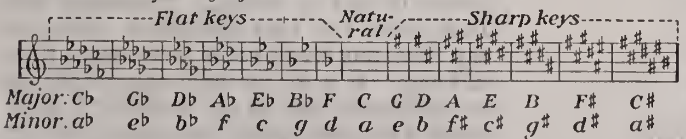
G Clef. F Clef. C Clef.

Clefs; — characters placed upon the staff to designate the pitches to be represented by its lines and spaces. The G clef specifically causes the second line to represent g′ and by inference we understand that the space above this second line represents a′; the line above, b′, etc. In the same way the F clef causes the fourth line to represent F. The C clef was formerly found in several different positions, any line or space on which it was placed representing c′ (middle C). The C clef is now found only on the first, third, and fourth lines, being referred to respectively as *soprano clef, alto clef,* and *tenor clef*. See CLEF.

♯ Sharp; — a character causing any degree of the staff on which it is placed or with which it is associated to represent a pitch a half step higher than it otherwise would.

♭ Flat; — a character causing any degree of the staff on which it is placed or with which it is associated to represent a pitch a half step lower than it otherwise would.

The *sharps* or *flats* placed at the beginning of a composition or of one of its sections are called collectively its *key signature*.



♮ Natural *or* Cancel; — a character which annuls the effect of a previous sharp or flat. When used in a key signature, a sharp (♯) or flat (♭) affects all octaves, including ledger lines and spaces throughout the piece, or until canceled by a natural (♮); but when used as an accidental, it affects only the one degree and only in the measure in which the symbol occurs, unless a note affected by this sign is tied to a note or notes of a succeeding measure or measures.

The natural (♮) affects only one degree and only for one measure, except when it is used to indicate a change in the key signature.

✕ *or* ✱ Double sharp; — a character which causes the staff degree on which it is placed to represent a pitch one whole step higher than it would in its unaltered state.

♭♭ Double flat; — a character which causes the staff degree on which it is placed to represent a pitch one whole step lower than it would in its unaltered state.

♮♯ Single sharp, as used after double sharp. In modern notation a ♯ is often used without the ♮ to accomplish this same end.

♮♭ Single flat, as used after double flat. (See ♮♯ above.)

8 Placed above a note, this means that the note an octave above is to be sounded with the note written; placed below, that the note an octave below is to be sounded with it.

8va. . . . . All' ottava; — at the octave. When above the staff it indicates that the tone or tones are to be sounded an octave higher than written; when below the staff that they are to be an octave lower.

coll' 8. . . . Coll' ottava (kôl·lôt·tä·vä); — with the octave (same as 8va.).

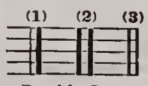
For less common methods of indicating pitch see (at the end of this article) *Tonic Sol-fa Notation* and *Shaped Notes*.

∿ *or* ∿ Custos, or direct: — a mark sometimes put at the end of a line or page to show the position of the first note on the next.

TIME AND RHYTHM

{ Brace joining several staffs indicates that the music written on them belongs together and is performed simultaneously.

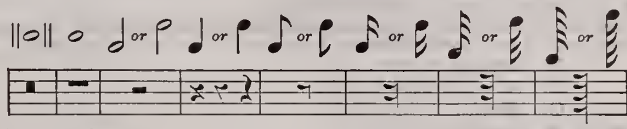
Bar; — a vertical line across the staff, dividing it into measures. (The word *bar* is often used colloquially for *measure;* as, a phrase of four *bars*.)



Double Bars.

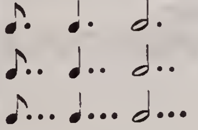
Double bar; — two vertical lines across the staff. The double bar is used to mark the end of a division, movement, or entire composition. The form numbered (3) is also used when there is a change of key or of measure signature in the midst of a composition. The single heavy bar often marks the end of a verse or sentence in hymn tunes, chorals, etc.

Different kinds of notes shown in the upper part of the illustration below indicate relative duration of tone; and the different kinds of rests shown immediately below the notes indicate relative duration of silence (of a particular instrument or voice).

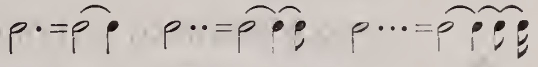


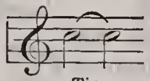
Breve Whole Half Eighth Quarter Sixteenth Thirty-second Sixty-fourth
Notes (above) and Rests (below).

Thus ♪ would indicate a tone twice as long as 𝅘𝅥𝅯 but only half as long as ♩, for every hook (cross stroke) added to a note or rest cuts its time value in half. When several eighth notes, sixteenth notes, etc. appear together, their stems are often joined thus ♫, ♬♬, etc.

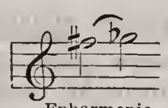


Dots after notes (or rests) increase their duration value, the single dot adding one half the value of the note after which it is placed, the double dot adding three quarters, and the triple dot, seven eighths. Thus



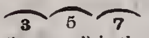


Tie.

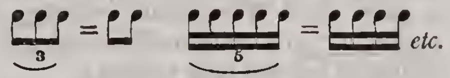


Enharmonic tie.

Tie; — a short curved line connecting the heads of two notes that call for the same tone. It indicates that one continuous tone, having a duration equal to the combined value of both notes, is to be sounded.

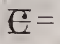


etc. are marks placed over irregular groups of notes and are used to indicate that three, five, seven, etc. notes (all equal) are to be performed (in general) in the time of two, four, six, etc., notes of the same kind respectively. For example:



4/4 3/4 2/4 6/8 etc. Measure signs *or* Time signatures; — indicate measure content, the upper figure showing in general the number of beats in each measure, the lower one, what kind of a note has a beat.

Measure signs; — have the same meaning as 4/4 3/4 2/4 etc.



𝄴 = 4/4

𝄵 = 4/2 *or* 2/2 Called *alla breve* (äl′la brā′vä).

M.M. ♩ = 80

M.M. 𝅗𝅥 = 66

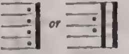
M.M. ♩. = 88

Tempo marks; — indicating respectively that 80 quarter notes, 66 half notes, or 88 dotted quarter notes are to be performed in one minute. The abbreviation *M.M.* (which is now often omitted) refers to Maelzel's metronome, an instrument for indicating the tempo. See METRONOME, METRONOMIC MARK.

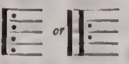
𝄐 Pause; — indicates that the note or rest over which it is placed is to be prolonged (in general without rhythm) at the pleasure of the performer. It is sometimes placed over the double bar at the close to denote that this point is the end of the composition. For a different meaning, see *Repetitions*, below.

𝄑 Pause; — placed under a note. See 𝄐 above.

REPETITIONS



Repeat marks; — indicate that a passage is to be played twice. If there is no other mark, repeat from the beginning.



Either of these symbols marks the beginning of a passage to be repeated. They are nearly always used in conjunction with the repeat marks above, and indicate that only the passage between them is to be repeated.

𝄋 Segno (sign) sometimes marks either the beginning or the end of a passage to be repeated, and sometimes indicates where successive voice parts are to take up the theme.

✕ *or* ✱ Presa; — indicates where successive voice parts are to take up the theme.

𝄋 Marks the beginning of a passage to be repeated.

⌊ *or* ⌈ *or* [Carry farther to the left.

⌋ *or* ⌉ *or*] Carry farther to the right.

⌐ *or* ⌋ Placed after a word or syllable at the beginning of a line, indicates that it is to be transposed to the line preceding.

⌙ *or* ⌈ Placed near the end of a line indicates that the letters partly enclosed are to be carried over to the next line.

⌣ Elevate a letter, word, or character that is sunk below the proper level.

⌢ Sink or depress a letter, word, or character that is raised above the proper level.

□ Em quad space; also, indent one em.

□□ Indent two ems.

□□□ Indent three ems.

$\frac{1}{en}$| *or* en En dash.

$\frac{1}{m}$, *em*|, |—|, $\frac{1}{em}$ *or* |$\frac{1}{}$| One-em dash.

$\frac{2}{m}$ Two-em parallel dash.

‖ *or* | Straighten ends of lines that are ragged.

⊥ *or* ⊥ Directs attention to a quadrat or space which prints as a mark.

× *or* + *or* ⊗ Broken or imperfect type. This mark is placed in the margin, and the broken letters are underscored or marked with a ring.

[Bring a word or words to the beginning of a line; also, make a new paragraph.

≡ *or* /// *or* \\\ Straighten (a crooked line or lines).

¶ Make a new paragraph.

no ¶ No paragraph; continue the same paragraph.

○ Spell out; — used in text, to encircle an undesired abbreviation or figure. Sometimes placed around a word that is spelled out to indicate that it is to be abbreviated.

!/ Exclamation point.

?/ Interrogation point.

⊙ Period.

or ∧, *or* ,/ Comma.

: *or* ⊙ Colon.

; *or* ;/ Semicolon.

∨ *or* ∨/ Apostrophe or single quotation mark.

∨∨/ Double quotation mark.

- *or* /=/ *or* -/ Hyphen.

[/] Brackets.

(/) Parentheses.

∨ *or* ∨ *or* ∨ Insert or replace with superior figure, character, or letter.

∧ *or* ∧ Insert or replace with inferior figure, character, or letter.

— Put in italic; also, change according to the mark in the margin, as from italic to roman, or from roman to italic. The line is drawn in the text under the letter, word, or words, to be changed.

ital. Italic; — used in the margin.

rom. Roman; — used in the margin.

bf. Bold-faced type; — used in the margin.

〰 Bold-faced type; — used in the text.

═ Italic bold-faced type; — used in the text.

wf or *w.f.* Wrong font; — used when a character is of a wrong size or style.

⌐⌙ *or tr.* Transpose. The sign is ordinarily written around the words or letters that are to be transposed, and the abbreviation *tr.* is written in the margin.

l.c. Lower case; that is, put in small, or common, letters a word or letter that has been printed in capitals or small capitals. Diagonal lines are drawn through the letters that are to be so changed.

=, s.c., *s. caps.*, or *sm.c.* Put in small capitals.

≡ *or caps.* Put in capitals.

| A vertical line at the left indicates that this part of the copy is to be set in smaller type than the rest. Two lines indicate still smaller type.

stet. . . . . Restore or retain words which have been crossed out; *stet* is usually written in the margin, and the dots under the words show which are to be kept.

out, s. c. Words are omitted, or are wanting, see copy.

(?) (?), *Qu.*, or *Qy.* Query. Is this right? Verify. Used chiefly on author's proofs.

tr. Transpose.

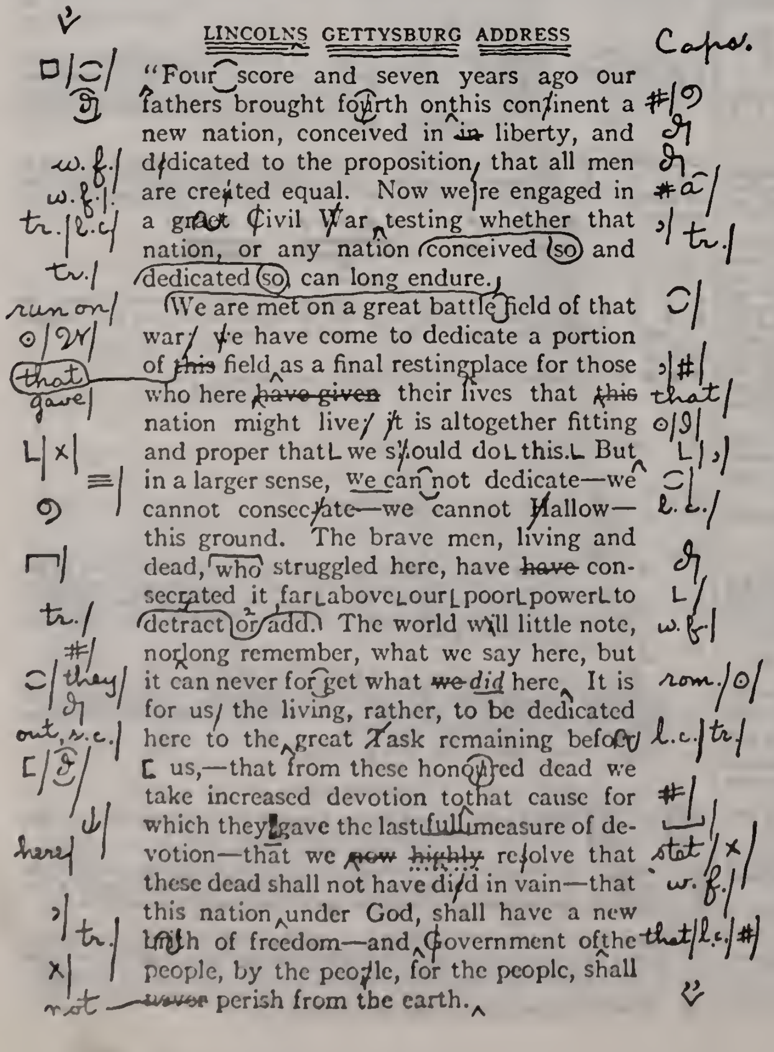
PUNCTUATION

, Comma.	^ *or* ~ *or* ⌒ Circumflex.	/ Virgule.
; Semicolon.	~ Tilde.	{ *or* } Brace.
: Colon.	¯ Macron.	* * * *or* —— Ellipsis.
. Period.	˘ Breve.	. . . Ellipsis; *also*, leaders.
— Dash.	¨ Diaeresis.	* Asterisk.
? Interrogation point.	¸ (ç) Cedilla.	† Dagger.
! Exclamation point.	∧ Caret.	‡ Double dagger.
( ) Parentheses.	" " Quotation marks.	§ Section; *also* numbered clause.
[ ] Brackets.	« » Quotation marks, French.	‖ Parallels.
' Apostrophe.	„ " Quotation marks, German.	¶ *or* ⁋ Paragraph.
- Hyphen.	' ' Quotation marks, single.	☞ Index.
´ Acute accent.	.. Tandem colon.	⁂ *or* ⁂ Asterism.
` Grave accent. See ACCENT.		

For an explanation of the various purposes for which these marks or points are used, see their names in the *Vocabulary*. Where the same word has several meanings, the sense here intended is usually labeled *Print*, or *Gram*. See also REFERENCE MARK.

Origins. — The interrogation point is said by Bilderdijk to have been formed from the first and last letters of the Latin word *Quaestio*, question, placed one over the other; thus, Q̥. According to the same authority, the note of exclamation was formed from the Latin word *Io*, joy, written vertically; thus, I̥. The circumflex accent (^, ⌒, *or* ~) is formed by joining the grave and the acute. The cedilla (¸) was originally the same as the letter *z*, and was written, in Spanish and French, between the letter *c* and a following *a*, *o*, or *u*, to preserve the *c* in its soft sound. Afterward it was placed under the *c*, and acquired the character of a mere diacritical point. The section (§) is said by some to have been formed from the initial letters (ſſ) of the Latin words *signum sectionis*, meaning *sign of the section*; but others assert that it is a corruption of a Greek π, the first letter of the word παράγραφος, which means *a marginal line* or *stroke*.

PROOF SHOWING (1) CORRECTIONS INDICATED, (2) CORRECTIONS MADE



LINCOLN'S GETTYSBURG ADDRESS

"Fourscore and seven years ago our fathers brought forth on this continent a new nation, conceived in liberty, and dedicated to the proposition that all men are created equal. Now we are engaged in a great civil war, testing whether that nation, or any nation so conceived and so dedicated, can long endure. We are met on a great battlefield of that war. We have come to dedicate a portion of that field, as a final resting place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this. But, in a larger sense, we cannot dedicate—we cannot consecrate—we cannot hallow—this ground. The brave men, living and dead, who struggled here, have consecrated it, far above our poor power to add or detract. The world will little note, nor long remember, what we say here, but it can never forget what they did here. It is for us the living, rather, to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced It is rather for us to be here dedicated to the great task remaining before us,—that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion—that we here highly resolve that these dead shall not have died in vain—that this nation, under God, shall have a new birth of freedom—and that government of the people, by the people, for the people, shall not perish from the earth."

SHIPS AND SHIPPING

A 1 The designation of a first-class vessel in Lloyd's Register; the letter denoting that the hull is well built and seaworthy, and the figure the efficient state of the rigging, anchors, stores, etc. The figure 2 would imply that these were insufficient in quantity, or of an inferior quality. When a vessel has passed the age for the character A (four to fifteen years), it is registered A in red.

Æ The designation of a vessel of the third class, fit to convey perishable goods on short voyages only.

E The designation of a vessel fit for carrying on a voyage of any length such goods only as are not liable to sea damage.

I The designation of a vessel fit for carrying goods of the same sort on shorter voyages only.

M C Letters used to indicate that the boilers and machinery of a steam vessel have been inspected, and found to be in good order and safe working condition.

→ Broad Arrow; a British government mark, stamped, cut, or otherwise fixed, on solid materials used in the royal ships or dockyards, in order to prevent embezzlement of naval stores; also used by British customs officers.

⊠ *or*)(Dead flat; the largest transverse section of a vessel. See DEAD FLAT **a**; PLIMSOLL MARK.

STAMPS AND STAMP COLLECTING

★ Unused.
O Used.
⊞ Block of four or more.
⊠ Original cover.
T Top.
B Bottom.
L Left.
R Right.
S.E. Straight edge.
o.g. Original gum.
sl. Slightly.
cld. Canceled.
perf. Perforated.
pmk. Postmark.
pmkd. Postmarked.
wmkd. Watermarked.
unwmkd. Unwatermarked.

WEATHER

NOTE. — Some terms, such as *sleet*, are used in several senses, and the symbols for these different meanings are different.

Aurora.
⊚ Calm.
○ *or* O Clear. See *visibility*, below.
◐ *or* ◑ Cloudy (partly). See *rain*, below.
Corona, lunar.
⊖ *or* ⦶ Corona, solar.
≡: Damp fog or mist.
⌓ Dew.
≡ Fog. See WET FOG; GROUND FOG.
V Frostwork. See also GLAZE; HOARFROST.
Gale.
∾ Glaze.
△ Graupel (snow pellets).
≣ Ground fog.
▲ Hail
or Halo, lunar.
⊕ Halo, solar.
∞ Haze. See also FOG; MIST.
⊔ Hoarfrost.
← Ice needles or ice crystals, floating in the air.
∾ Ice storm.
< Lightning (without thunder).
Mirage.
≡: Mist (damp).
≡° Mist (light).
◍ Rain; — formerly also cloudy or overcast sky.
● Rain or cloudy; — variously used in weather maps.
⌒ Rainbow.
V Rime.
< Sheet lightning.
∾ Silver thaw. See also *rime*, above.
△ Sleet; graupel.
∾ Sleet; glaze.
✱ *or* ⊗ Sleet (sense 2 **c**); snow and rain mixed.
∞ Smoky atmosphere.
✳ Snow.
⊠ Snow on ground.
Snow, drifting.
Snow, driving.
⊙ Sunshine.
T Thunder (without lightning).
Thunderstorm (thunder and lightning).
± Vertical gradient (rate of change with increase of height).
Visibility (exceptionally clear).
≡: Wet fog.
→ *or* Wind (the direction of the arrow on maps indicates the direction of the wind.
Wind, strong (now usually restricted to gale).
Zodiacal light.

Most of the above symbols are international.

An exponent added to a symbol indicates degree of intensity; as, ◍° light rain; ◍[1] moderate rain; ◍[2] heavy rain. The exponent 1 is not ordinarily used in English-speaking countries; and moderate or medium intensity is usually meant when a symbol is used with no exponent. See also WIND SCALE, in the *Vocabulary*.

FORMS OF ADDRESS

An exhaustive list of all alternative FORMS OF ADDRESS permissible in polite correspondence would extend far beyond the scope of this Dictionary; especially in informal correspondence, there is a great variety of possible salutations. In the table below, we have usually put the most formal address and salutation first. Differences of local usage, however, inevitably introduce many exceptions. In the United States, "My dear Mrs. Smith" is more formal than "Dear Mrs. Smith"; in Great Britain, the reverse is true. In business correspondence, the addressee's address is placed before the salutation; in most official and some social correspondence, it is placed at the foot of the letter, below and to the left of the signature. Social invitations to a married man are customarily addressed to the man and his wife; as, Senator and Mrs. Borah; The President and Mrs. Roosevelt; Lord and Lady Astor; Their Excellencies, the German Ambassador and Madame ——; etc.

It will be noted that some of the addresses given below begin with the word "To," whereas most do not. There is no hard and fast rule. We have tried to suggest merely the more customary usage. Insertion or omission of the word "To" is optional. It will also be noted that the same word may be spelled differently according to the residence of the person addressed. For example, in the United States the spellings *honor* and *honorable* are preferred; but in Great Britain, *honour* and *honourable*. In the address, abbreviations are commonly used but they should never be used in the salutation, or beginning of a letter.

* Such salutations as My Lord, Your Lordship, etc., are not ordinarily used in the United States of America, but should be used by an American writing to dignitaries of foreign countries entitled to such a title or mark of respect.

† When the person addressed holds several titles, as one from birth, another by marriage, and another by profession, always employ the highest title.

‡ Clerical, naval, and military prefixes are written before other titles; initials indicative of distinction are written after the title and name; an officer should be addressed by his official title when the communication refers to official business.

A

Abbot
Address: The Lord Abbot of ——; *or* The Right Reverend Dom —— ——, O.S.B. (or other initials of the order), Abbot of ——; *or* The Right Rev. Abbot ——.
Begin: My Lord Abbot; *or* Dear Father Abbot.*

Administrator. Same as Governor.

Air–Force Officers. Like Army Officers, and Naval Officers.

Alderman (in Canada and U. S. A.)
Address: Alderman —— ——.
Begin: Dear Sir.

Ambassador †
Address: To his Excellency, the Ambassador of the French Republic at ——; *or* To his Excellency, the Japanese Ambassador at ——; *or* His Excellency, —— ——, Ambassador of Brazil at ——; *or* His Excellency (but if a duke, His Grace), His Britannic Majesty's (H.B.M's) Ambassador Extraordinary and Plenipotentiary at ——. The personal name or hereditary or professional title may be added after the words His Excellency. (*His Excellency* is usually abbreviated to *H.E.*)
Begin: Sir (*or* with the personal title, as Your Grace, etc.); *or* Your Excellency.

Ambassador and his wife
Address: Their Excellencies, the German Ambassador and Madame ——; *or* Their Excellencies, the Ambassador of Chile and Madame ——. (*Their Excellencies* is usually abbreviated to *T.E.*)
Begin: Your Excellencies.

Apostolic Delegate. See *Papal Nuncio*, below.

Archbishop (Anglican)
Address: His Grace the Lord Archbishop of ——.
Begin: My Lord Archbishop; *or* Your Grace.
NOTE. — In formal documents, the Archbishop of Canterbury is addressed as The Most Reverend Father in God —— by Divine Providence Lord Archbishop of Canterbury; the Archbishop of York as The Most Reverend Father in God —— By Divine Permission Lord Archbishop of York.

Archbishop (Roman Catholic)
Address: His Grace the Archbishop of ——; *or* The Most Reverend Archbishop of ——; *or* The Most Reverend —— ——, Archbishop of ——; *or* The Most Reverend Archbishop ——.
Begin: My Lord Archbishop; *or* My Lord; *or* Your Grace; in the United States, Most Reverend Sir, *or* Most Reverend Archbishop.

Archdeacon
Address: The Venerable The Archdeacon of ——; *or* The Venerable —— ——, Archdeacon of ——.
Begin: Venerable Sir

Army Officers
In the United States, letters from civilians:
Address: The Commander in Chief, Army of the United States; *or* Lieutenant General ——, Commanding Officer, Army of the United States. Colonel —— ——, U.S.A. Mr. —— ——, Lieutenant, U.S.A
Use highest rank and full title. In case of retired officers, omit U.S.A.
Begin: Sir; *or* (informal) My dear General —— (not My dear Lieutenant General ——); *or* Dear Commander —— (not Dear Paymaster Commander ——); but for officers below the rank of captain, Dear Mr ——. In official correspondence between officers of the United States Army, the ordinary ceremonial beginnings and endings should be omitted, and in the upper left hand corner of the first page should appear in the following order: the file reference number (if any), the subject, and the address.
Example:
In reply refer to:
004.6121
Subject: War Risk Insurance, applications for.
To: The Adjutant General, Washington, D. C.
NOTE. — In the British army and navy, when an officer has a hereditary title or rank, his military or naval rank will ordinarily be prefixed to this; as, Admiral the Right Honourable the Earl of ——; General the Right Honourable Lord ——; but lieutenants in the army and sublieutenants in the navy are not addressed by their military or naval rank; thus, Thomas Jones, Esq., 10th Hussars (not Lieutenant Thomas Jones).
Begin: Sir; *or* Dear General ——; *or* Dear Lord —— (but not Dear General Lord ——).

Assemblyman
Address: The Honorable —— ——, Member of Assembly; *or* Assemblyman ——.
Begin: Sir; *or* Dear Sir; *or* My dear Mr. ——.

Assistant Secretary (Assistant to a Cabinet Officer)
Address: Honorable —— ——, Assistant Secretary of ——; *or* The Assistant Secretary of the —— Department.
Begin: Sir; *or* Dear Sir; *or* My dear Mr. ——; *or* Dear Mr. —— (never Mr. Secretary).

Associate Justices
Address: The Honorable —— ——, Associate Justice of the Supreme Court; *or* Honorable —— ——, Justice, Supreme Court of the United States; *or* Mr. Justice ——.
Begin: Mr. Justice; *or* Sir; *or* Your Honor; *or* My dear Mr. Justice.

Attorney General. See *Cabinet Officer*, below.

Auditor of the Treasury
Address: The Honorable —— ——, Auditor of the Treasury; *or* The Auditor of the Treasury.
Begin: Sir; *or* Dear Sir.

B

Baron
Address: The Right Honourable Lord ——; *or* The Lord ——.
Begin: My Lord.

Baroness
Address: To the Right Honourable the Baroness ——; *or* Right Honourable the Lady ——; *or* The Lady ——.
Begin: Madam.

Baronet
Address: Sir John ——, Bt. *or* Bart.
Begin: Sir.

Baronet's wife. See *Lady*, below.

Baron's daughter
Address: (If unmarried) Honourable Helen ——; *or* (if married to a commoner or to the son of a baron or viscount or the younger son of an earl) Honourable Mrs. ——; *or* (if her husband has a married brother) Honourable Mrs. John ——; *or* (if married to a knight or baronet) Honourable Lady ——. If she is married to a man of higher title, use feminine of husband's title.
Begin: Madam (or use higher title if one exists).

Baron's son
Address: Honourable —— ——.
Begin: Sir.
(No distinction for eldest son, except that in Scotland he is sometimes addressed as Master of ——.)

Baron's son's wife.† Like baron's married daughter.

Baron's wife. = *Baroness*, above.

Benedictine. See *Priest*, below.

Bishop (Anglican)
Address: The Right Reverend the Lord Bishop of —— (*or* The Lord Bishop of ——); *or* (very formal) The Right Reverend Father in God, ——, by Divine Permission Lord Bishop of ——.
Begin: My Lord Bishop; *or* My Lord.

Bishop (Anglican, Retired). Same as Scottish Bishop.

Bishop (Methodist)
Address: Reverend Bishop —— ——.
Begin: Dear Sir; *or* Dear Bishop ——; *or* My dear Bishop ——.

Bishop (Protestant Episcopal)
Address: To the Right Reverend —— ——, Bishop of ——.
Begin: Right Reverend and Dear Sir; *or* Dear Bishop —— (informal); *or* My dear Bishop ——.

Bishop (Roman Catholic)
In English-speaking countries,
Address: The Lord Bishop of ——; *or* His Lordship the Bishop of ——; *or* The Most Reverend ——, Bishop of ——; *or* The Most Reverend Bishop ——.
Begin: My Lord Bishop; *or* My Lord; *or* Your Lordship; *or* (in U. S. A.) Your Excellency.
In Italy,
Address: To His Excellency, the Most Illustrious and Most Reverend Monsignore ——, Bishop of ——.
Begin: Most Illustrious and Most Reverend Lord; *or* Excellency

Bishop (Scottish)
Address: The Right Reverend Bishop ——.
Begin: Right Reverend Sir.

C

Cabinet Officers (United States)
Address: The Honorable the Secretary of State (or War, Agriculture, etc.); the Honorable the Secretary of the Treasury; the Honorable the Postmaster General; *or* The Honorable —— ——, Secretary of State, etc.; *or* The Secretary of State; The Attorney General, etc.
Begin: Sir; *or* Dear Sir; *or* My dear Mr. Secretary; *or* My dear Mr. Attorney General.

Canon
Address: The Very Reverend Canon —— ——; *or* The Very Reverend —— Canon ——.
Begin: Very Reverend Canon; *or* Dear Canon ——.

Canon Regular. See *Priest Regular*, below.

Cardinal
Address: His Eminence Cardinal ——; *or* His Eminence John, Cardinal H——.
Begin: My Lord Cardinal; *or* Your Eminence.*

Cardinal (if also an Archbishop)
Address: His Eminence the Cardinal Archbishop of ——; *or* His Eminence Cardinal ——, Archbishop of ——.

Carthusian. See *Priest*, below.

Chargé d'Affaires
Address: The Chargé d'Affaires of ——; *or* —— ——, Esq., Chargé d'Affaires; *or* Mr. —— ——, Chargé d'Affaires.
Begin: Dear Sir; *or* Sir; *or* My dear Mr. ——. (Use military, naval, or hereditary title, if there is one.) †

Chief Justice (Canada)
Address: The Honourable ——, Chief Justice of ——.
Begin: Sir.

Chief Justice of the Supreme Court of Canada
Address: The Right Honourable ——, P.C., Chief Justice of Canada.
Begin: Sir.

Chief Justice of the United States
Address: The Chief Justice of the United States; *or* The Justice of the Supreme Court; *or* The Honorable —— ——, Chief Justice of the Supreme Court of the United States; *or* (in social correspondence) Mr. Justice ——; *or*, if to the Chief Justice and his wife, The Chief Justice and Mrs. ——.
Begin: Mr. Chief Justice; *or* Sir; *or* (in social correspondence) My dear Mr. Chief Justice.

children. See *Baron's daughter, Baron's son*, above; *Duke's eldest son*, below. Children of a peeress in her own right married to a commoner receive the same courtesy titles as though their father were a peer of the mother's rank.

Cistercian. See *Priest*, below.

Clergyman
Address: The Reverend —— —— (Rev. and Mrs. —— ——); *or* (if a doctor of divinity) Rev. Dr. —— ——.
Begin: Dear Sir; *or* Reverend Sir; *or* My dear Mr. (or Dr.) ——; *or* Dear Mr. (or Dr.) ——. See also *Archbishop, Bishop*, above; *Priest*, below. (Most authorities disapprove the use of *Rev.* with the last name alone.)

Clerk (Anglican Church)
Address: The Reverend —— ——; *or* (if the son of a duke or marquis) The Reverend Lord —— ——; *or* (if the son of an earl, viscount, or baron) The Rev. The Hon. —— ——. †
Begin: Reverend Sir; *or* Sir.

Clerk (below the order of priesthood in Roman Catholic Church)
Address: The Reverend —— ——.
Begin: Reverend Sir; *or* Dear Mr. ——.

Clerk of Senate *or* House
Address: The Honorable —— ——, Clerk of ——.
Begin: Sir; *or* Dear Sir.

Commissioner of Bureau; as, U. S. Commissioner of Education.
Address: The Honorable —— ——, Commissioner of the Bureau of Education.
Begin: Sir; *or* Dear Sir.

Common Forms

Man
Address: Mr. —— ——.
Begin: Dear Sir; My dear Sir; My dear Mr. ——; *or* Dear Mr. ——.
Pl. Address: Messrs. —— —— and —— ——.
Begin: Gentlemen.

Married Woman
Address: Mrs. Albert B. Clark.
Begin: Dear Madam; My dear Madam; My dear Mrs. Clark; *or* Dear Mrs. Clark.
Pl. Address: Mms. —— —— and —— ——.
Begin: Mesdames; *or* Ladies.

Unmarried Woman
Address: Miss Clark (eldest daughter); *or* Miss Anne Clark (younger daughter).
Begin: Dear Madam; My dear Miss Clark; etc.
Pl. Address: The Misses Clark.
Begin: Ladies; *or* Mesdames.

Comptroller of Treasury
Address: The Honorable —— ——, Comptroller of the Treasury.
Begin: Sir; *or* Dear Sir.

Congressman
Address: Honorable James H. Smith, House of Representatives, Washington, D. C.; *or* Honorable James H. Smith, Representative in Congress, Springfield, Mass.
NOTE. — Some authorities disapprove the use of the prefix Hon. without first name or initials.
Begin: Sir; *or* Dear Sir; *or* My dear Mr. ——.

Consul
Address: To the American Consul at ——; *or* —— ——, Esq., American Consul at ——; *or* Mr. —— ——, United States Consul at ——; *or* to —— ——, Esq., His Britannic Majesty's (H.B.M's.) Consul at ——.
Begin: Dear Sir.

Countess
Address: To the Right Honourable The Countess of ——; *or* The Countess ——.
Begin: Madam.

D

Dame
Address: Dame —— —— (follow with initials of the

A PRONOUNCING GAZETTEER

OR

GEOGRAPHICAL DICTIONARY OF THE WORLD

GIVING THE SPELLING, PRONUNCIATION, LOCATION, SIZE, POLITICAL RELATIONS, AND OTHER ITEMS OF INTEREST FOR MORE THAN THIRTY THOUSAND PLACES

THE changes in the 1923 revision of the GAZETTEER were necessarily more numerous than in any preceding revision, owing to the great changes in boundaries, populations, jurisdictions, and forms of government brought about by the World War throughout the world and particularly in Europe, the political upheaval in Russia, the progress of discovery, as in the polar regions, and the rapid development of some parts of the world, as Africa.

In this NEW EDITION not only have many changes been made because of progress in exploration, aviation, and general travel, but also the latest statistical information from the decennial censuses of 1930 and 1931 or officials estimates of the leading nations of the world has been inserted. The latest official decisions respecting the spelling of place names have been recorded. For foreign countries, places have been entered under their names in the present official native language, except where usage has established a conventional form, as for *Naples, Cologne, Vienna, Bagdad.* In such countries as Poland, Czechoslovakia, Yugoslavia, Rumania, etc., where names from two or more languages have been in current use, the Polish, Czech, Serbo-Croatian, or Rumanian name has in many cases officially replaced the formerly better-known German, Russian, or other foreign name, and where such names have become established they have been preferred in this Gazetteer, as *Kalisz* (formerly *Kalish*), *Bratislava* (*Pressburg*), *Zagreb* (*Agram*), *Braşov* (*Kronstadt*), although both forms have been given in all such cases and cross references made from the smaller type at the foot of the page.

The AIM OF THE GAZETTEER is to answer concisely and accurately the ordinary questions that arise in regard to geographical names: What is the correct spelling of a name and its correct pronunciation? What is the location and what is the population of a town, height of a mountain, length of a river, area of a lake, county, or state? What historical, political, or other items of interest relate to it?

The CHOICE OF TITLES from the constantly increasing mass of geographical material has been a difficult task. Those names have been selected which seemed of most interest to English-speaking readers. Thus there have been included all of the incorporated places (cities, boroughs, towns, villages, etc.) in the United States having more than fifteen hundred inhabitants according to the Fifteenth Census (1930). For other countries, a higher limit of population has necessarily been chosen, varying somewhat according to the probable frequency with which names in any particular country would be sought. At the same time, many places below the adopted limit of population have been inserted because of their historical, literary, or other interest.

Cross References from entries in the upper part of the page are to entries in the Dictionary proper, unless the Gazetteer is specified by (*Gaz.*). Cross references from entries in the smaller type at the foot of the page are to the Gazetteer entries in the upper part of the page, except in a few instances where the Dictionary is specified. A useful feature is the linking together of the entries in the Gazetteer with pertinent information in the main Vocabulary of the Dictionary. Thus, under **New York** are references to BOWERY, EAST SIDE, TAMMANY, TENDERLOIN, etc., and under **London** to CHARING CROSS, CHEAPSIDE, PICCADILLY, and many other entries where interesting facts respecting New York and London are recorded.

Spelling and Pronunciation. When two or more forms of spelling or of pronunciation are recorded, that one has been given first which has been selected as preferable. Each form entered, however, has the support of good usage, and often this usage is practically equally divided. Further details of spelling and pronunciation are given at page 3015.

Areas. The areas given for countries, subdivisions, etc., are from the latest official figures and in each case generally include the inland water, as for Canada, Great Britain, etc., but none of the adjoining waters, as of oceans, seas, etc. For the States of the United States, however, figures for both the land and water areas are given.

Populations. Official census figures are now available for most civilized countries and for many less civilized parts of the world that are under their jurisdiction, and the latest available figures have been used in compiling this Gazetteer. Where resort to estimates has had to be made, the figures given are the best to be had. The population figures record the resident population, where this could be had, as in the United States census. When no population figure is given for a place, it means, generally, that the population is less than 1,000 (1,000 being indicated by 1), or, rarely, that the population is unknown.

Terminology. The designations generally used for the various subdivisions of countries, states, etc., as *province, department, county, canton, circle* (Ger. *kreis*), *intendancy, district, region, autonomous area,* etc., and for places, as *municipality, city, town, village, borough, commune,* etc., will be found clearly defined in the Dictionary. A few such divisional or place designations are here given with explanations of their specific census use:

Borough. The *borough* is generally a town or municipal corporation, often one with a particular form of municipal government (see BOROUGH, *n.*, in the *Dict.*, esp. defs. 1 b, 2, 3, 4, 5, and 6; also MUNICIPAL, *adj.*, esp. def. 2). In Scotland the borough is specifically called *burgh* (see BURGH, *n.*, in the *Dict.*). In England and Wales the *county borough* (abbreviated to *co. bor.* in the Gazetteer) while located geographically in a county, is distinct from the "administrative county" and is independent of the county council, but in other municipal boroughs (*mun. bor.* in the Gazetteer) the county council exercises some powers and duties and these boroughs pay their share of the county expenses. In those counties that include geographically a county borough or boroughs the population including such borough or boroughs is given in the Gazetteer, and also that of the administrative county only.

Commune. The *commune* is the unit of local government in France. It generally consists of a town or village and, often, a considerable portion of the surrounding country. Communes vary greatly in size and population. Similar districts in various other countries, particularly many of the European countries and their colonies, are also called *communes.* As in most censuses the communal population only is given for such districts, this population is often somewhat larger than that of the town or village proper.

County. The county is one of the oldest territorial divisions in Great Britain and Ireland, and hence in the United States and in various British colonies (see COUNTY, in the *Dict.*, esp. defs. 3, 5, and 6). In England and Wales there are now 62 administrative counties (see def. 3 in the *Dict.*, and cf. BOROUGH, above), as distinguished from the 52 older counties, often called the *ancient,* or *geographical, counties.* In Australia the use of the *county* as a census area has been discontinued. In the older, eastern provinces of Canada, the *county* remains as a local subdivision, but the *electoral district,* the subdivision on which is based the representation in the Dominion House of Commons, is the unit used in the census. In many cases, the electoral district corresponds to the county of the same name. The western provinces, as Manitoba, Saskatchewan, etc., are not divided into counties, but into *municipalities,* the powers of which are similar to those of counties. Subdivisions of other countries that correspond to the counties of England and America are also designated as *counties* in the Gazetteer, as the *amter* of Denmark and the *fylker* of Norway.

District. The counties of England and Wales, except London, are subdivided into "county districts," *urban* or *rural* as the case may be. The term *urban district* technically includes the municipal boroughs but is commonly specifically used to designate a small area more or less densely populated, a town, or even a small city, that does not yet enjoy all the powers of self-government belonging to a borough. The *district* of England and Wales may be likened to the *commune* of Continental countries, excepting that the *rural district* is further subdivided into *parishes,* which have certain very limited powers.

Mandate. The creation by the Covenant of the League of Nations of the mandate, or commission to establish a government over a conquered territory inhabited by a "backward" race, is one of the interesting developments following the World War. Where any territory has thus been mandated to another nation by the League this fact is noted in the Gazetteer, as under *Bismarck Archipelago, Samoa Islands, Tanganyika Territory,* etc.

Municipality. This designation is used in certain countries of a town, city, or other district having powers of local self-government, as in parts of Canada, the Philippine Islands, Brazil (Pg. *municipio*), Colombia (Sp. *municipio*), Puerto Rico, Cuba, etc. The municipality often includes a large extent of country, as in Canada (see under COUNTY, above) and in Brazil. In some countries, as Brazil, the census returns give populations for municipalities only and not for cities and towns proper.

Prefecture. The chief local-government area of Japan (except Hokkaido, Korea, Karafuto, and Formosa) is now the *prefecture,* which may be compared to the *province* in some other countries. The old provinces of Japan, which still appear on many maps, are also given in the Gazetteer, as of considerable historic and geographic interest.

Urban district. See under DISTRICT, above.

The following **signs and abbreviations** are here tabulated for convenient use:

□	square miles.	*bet.*	between.	*div.*	division.	*kdm.*	kingdom.	*p.*	population.	*rt.*	right.
×	county seat.	*bor(s).*	borough.	*Du.*	Dutch.	*L.*	Latin.	*Pac.*	Pacific.	*Rum.*	Rumania, -ian.
✱	capital.	*bpl.*	birthplace.	*Eng.*	England, English.	*lat.*	latitude.	*par.*	parish.	*Russ.*	Russia, Russian.
†	former name of.	*Br. Brit.*	British.	*est.*	estimated.	*m.*	mile, miles.	*parl.*	parliamentary.	*Scot.*	Scotland, -tish.
ab.	about.	*Bulg.*	Bulgarian.	*Eu.Eur.*	Europe, -ropean.	*Medit.*	Mediterranean.	*past.*	pastoral.	*sett.*	settlement.
adj.	adjective; adjacent.	*B. W. I.*	British West Indies.	*excl.*	excluding.	*met.*	metropolitan.	*pen.*	peninsula.	*Slav.*	Slavic.
admin.	administration, -tive.	*Can.*	Canada.	*fed.*	federated, -eration.	*Mex.*	Mexico.	*Pg.*	Portuguese.	*Sp.*	Spanish.
Af. Afr.	Africa, African.	*capt.*	captured.	*form.*	former, formerly.	*mfg.*	manufacturing.	*Phil.*	Philippine.	*spt.*	seaport.
agr.	agricultural.	*cath.*	cathedral.	*fr.*	from.	*min.*	mining, mineral.	*Pol.*	Polish.	*sub.*	suburb.
alt.	altitude.	*cen.*	central.	*Fr.*	France, French.	*mod.*	modern.	*pop.*	population.	*subdist.*	subdistrict.
Alta.	Alberta.	*C. H.*	Court House.	*ft.*	fortified *or* (with figures) feet.	*mt.*	mountain.	*Port.*	Portuguese.	*subprov.*	subprovince.
Am.	America.	*cml.*	commercial.	*Ger.*	Germany, German.	*mun.*	municipal, -pality.	*poss.*	possession.	*Switz.*	Switzerland.
Amer.	America, -can.	*co.*	county.	*govt*	government.	*munic.*	municipality.	*pref.*	prefecture.	*ter.*	territory.
anc.	ancient, -ciently.	*col(s).*	colony.	*har.*	harbor.	*nat.*	national.	*pres.*	presidency.	*tn.*	town.
Ar.	Arabic.	*coll(s).*	college.	*ht.*	height.	*nav.*	navigable.	*prot.*	protectorate.	*trib(s).*	tributary.
arch	archipelago.	*comm.*	commune.	*Hung.*	Hungary, -garian.	*Neth.*	Netherlands.	*prov(s).*	province.	*Turk.*	Turkey, Turkish.
Atl.	Atlantic.	*Croat.*	Croatian.	*incl.*	including.	*Newf.*	Newfoundland.	*Prus.*	Prussia, Prussian.	*univ.*	university.
auton.	autonomous.	*Czech.*	Czechoslovakia.	*Ir.*	Irish.	*Nor.*	Norway, -wegian.	*res.*	residency.	*U. of S. Af.*	Union of S. Africa.
bat(s).	battle.	*Dan.*	Danish.	*isl.*	island.	*nr.*	near.	*rep. repub.*	republic.	*vil.*	village.
Belg.	Belgium, -gian.	*dept(s)*	department.	*It.*	Italy, Italian.	*oc.*	ocean, oceans.	*riv.*	river.	*vol.*	volcano, volcanic.
		dist(s).	district.			*opp.*	opposite.				

☞ When followed by a period, E, N, S, or W indicates part of a place name; without the period, it shows direction or position only.

A

Aa (ä) either of two small rivers of Latvia, Europe, one in Zemgale, past Jelgava to Gulf of Riga; the other in Vidzeme, to Gulf of Riga; battles 1917.

Aabenraa (ô′bĕn·rô′) co. SE South Jutland, Denmark, 305 □ p. 40. — its × pop. 9.

Aachen (ä′kĕn) *Fr.* **Aix-la-Chapelle** (ĕks′lȧ·shȧ′pĕl′; ĕs′-) govt. dist. Rhine Prov. Prussia, 1,162 □ pop. 689. — *anc.* A′QUISGRA′NUM, mfg. city, its ✱ pop. 156; mineral baths; a coronation city of the Holy Roman Empire. See AIX-LA-CHAPELLE (*Gaz.*).

Aaland. Var. of ÅLAND.

Aalborg (ôl′bŏrk) co. NE Jutland, Denmark, 1,129 □ pop. 187. — *anc.* ALBUR′GUM, cml. spt. its ✱ pop. 45.

Aalen (ä′lĕn) comm. Jagst circle, Württemberg, Germany, pop. 12.

Aalesund. See ÅLESUND (*Gaz.*).

Aalsmeer (äls′mār′) comm. N. Holland prov. Netherlands, 8 m. SW of Amsterdam, pop 9.

Aalst. See ALOST (*Gaz.*).

Aalten (äl′tĕn) comm. Gelderland prov. Netherlands, 30 m. E of Arnhem, pop. 11.

Aar (är) *or* **Aare** (ä′rĕ) *anc.* OBRIN′GA, riv. Switz. 175 m. long, nav. from Rhine riv. to Thun.

Aarau (är′ou′) comm. ✱ of Aargau canton, Switzerland, on Aar river, pop. 12.

Aargau (är′gou′) *Fr.* **Argovie** (ȧr′gô′vē′) canton, Switz. 548 □ pop. 260, ✱ Aarau.

Aarhus (ôr′hōōs′) co. E Jutland, Denmark, 970 □ pop. 260. — spt. its ✱ pop. 82.

Aba (ä′bä) town, Calabar prov. SE S. provs. Nigeria, pop. 13.

Abaco, Great & Little (ăb′ȧ·kō) two of Bahama isls. 776 □; Gr Abaco, 80 m. long, pop. 4.

Abadan (ä′bȧ·dän′) town & isl. Shatt al Arab delta, Khuzistan prov. Persia, pop. 30; oil refineries.

Abadeh (ä·bä′dĕ) walled town, Fars prov. Persia, pop. 10; fruit gardens.

Abana *or* **Abanah.** See BARADA (*Gaz.*).

Abancay (ä′bäng·kī′; 98) town, former ✱ of Apurímac dept. Peru, pop. 7.

Abano Terme (ä′bä·nō tĕr′mā) comm. Padova prov. Venezia, Italy, pop. 7; hot springs.

Abauj-Torna (ŏ′bŏ·ōō·y′·tôr′nŏ) min. co. NE Hungary, 650 □ pop. 91, × Szikszó.

Abbasa, El (ĕl ȧh·bä′sȧ) town, Sharqiya prov. Lower Egypt, pop. 16.

Abba Yared (äb′bä yä′rĕt) mt. Tigré, Abyssinia, 15,015 ft. high.

Abbazia (äb′bät·sē′ä) vil. Italy, on Gulf of Fiume, pop. 4; watering place.

Abbeville (ăb′ē·vĭl) co. W S. C. 510 □ pop. 23. — its × pop. 4. — town, × of Henry co. Ala. pop. 2. — town, × of Vermilion par. La. pop. 4. — (*pron.* ȧb′vēl′) *anc.* AB′BATIS VIL′LA, comm. dept. Somme, France, pop. 19.

Abbiategrasso (äb·byä′tā·gräs′sō) comm. Milano prov. Italy, 14 m. SW of Milan, pop. 16.

Abbotsford (ăb′ŭts·fẽrd) estate, Roxburgh co. Scotland, on Tweed riv. 1½ m. SE of Galashiels; residence (1824–1832) of Sir Walter Scott.

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Indus (ĭn′dŭs) riv. Tibet, Kashmir, Punjab, & Sind, Br. India, 2,000 m. to Arabian sea.
Inegöl (ē′nĕ·gûl′) town, Bursa vilayet, NW Turkey, Asia, pop. 12.
Ingelmunster (ĭng′gĕl·mŭn′stẽr; 142) comm. W. Flanders prov. Belgium, pop. 8.
Ingersoll (ĭng′gẽr·sŏl) mfg. town, Oxford co. Ontario, Canada, pop. 5.
Ingham (ĭng′ăm) co. S Mich. 553 □ pop. 117, × Mason.
Inglewood (ĭng′g'l·wo͝od) city, Los Angeles co. Calif. p. 19.
Ingoda (ēn·gō′dȧ) riv. SE E. Siberia region, Soviet Russia, Asia, Yablonoi mts. 360 m. joins Onon forming Shilka riv.
Ingolstadt (ĭng′gōl·shtät) comm. Upper Bavaria govt. dist. Bavaria, Germany, pop. 27.
Ingram (ĭng′grăm) bor. Allegheny co. Pennsylvania, pop. 4.
Ingria (ĭng′grĭ·ȧ) anc. Russ. dist. S of Finland, now in Leningrad area, Soviet Russia, Eur.
Ingul (ēn·go͞ol′) riv. 200 m. long. S Ukraine, Europe, to Bug river.
Ingulets (ēn′go͞o·lyĕts′) riv. 200 m. long. S Ukraine, Europe, to Dnieper river.
Ingur (ēn·go͞or′) riv. ab. 100 m. long. NW Georgia, Transcaucasia, fr. Caucasus mts. to Black sea. See SVAN.
Ingush (ēn·go͞osh′) auton. area, SE N. Caucasus region, Soviet Russia, Eur. 1,242 □ pop. 75. * Ordzhonikidze.
Ingwavuma (ĭng′wȧ·vo͞o′mä) dist. N Zululand, Natal, U. of S. Afr. ab. 1,950 □ pop. 17.
Inhambane (ĭn′yăm·bä′nĕ) dist. SE Mozambique, SE Africa, 21,000 □ pop. 248. — cml. spt. its * pop. 10.
Inishmore (ĭn′ĭsh·mōr′) largest isl. of Aran isles, Galway bay, W Ireland, 9 m. long.
Inkerman (ĭngk′ẽr·mȧn′) vil. near Sevastopol, Crimea, Soviet Russia, Eur.; battle 1854.
Inkster (ĭngk′stẽr) vil. Wayne co. Mich. pop. 4.
Inland Sea, *Jap.* **Seto chi Umi** (sā′tō chē o͞o′mē) *or* **Seto no Uchi** (sā′tō nō o͞o′chē) ab. 240 m. long. bet. Honshu on N & Shikoku & Kyushu on S, Japan.
Inn (ĭn) *anc.* AENUS. riv. Engadine. E Switz. Tirol, & Bavaria, part Austrian boundary, 320 m. to Danube.
Innsbruck (ĭns′bro͝ok) mfg. city, * of Tirol prov. Austria, on Inn river, pop. 56.
Inowroclaw (ē′nô·vrôts′läf) *Ger.* **Hohensalza** (hō′ĕn·zäl′tsä) city, Poznań, Poland, p. 31.
Inoz (ē′nōz) *form.* **Enos** (ā′nŏs), *anc.* AE′NOS, town, on Aegean sea, E of Maritsa riv. Turkey in Eur. pop. 7.
Ins (ĭns) *Fr* **Anet** (ȧ′nĕ′) comm. Bern canton, Switz. pop. 2; archaeological site.
Insein (ĭn·sān′) dist. Pegu div. Burma, Br. India, 1,914 □ pop. 331. — town, its * pop. 20.
Insterburg (ĭn′stẽr·bo͝ork) comm. Gumbinnen govt. dist. E. Prussia, Germany, pop. 39.
Interior (ĭn·tẹr′ĭ·ẽr) residency, Br. N. Borneo, 6,543 □ pop. 56.
Interlaken (ĭn′tẽr·lä′kĕn; ĭn′tẽr·lä′kĕn) *i. e.* "between lakes," beautiful vil. between lakes of Thun & Brienz. Switzerland, pop. 2; summer resort.
International Falls, city, × of Koochiching co. Minnesota, pop. 5.
Intra (ēn′trä) comm. Novara prov. Piedmont, Italy, pop. 14.
Inveraray (ĭn′vẽr·ā′rĭ) burgh, × of Argyll co. Scotland; castle.
Invercargill (ĭn′vẽr·kär′gĭl) spt. bor. Otago prov. S S. Island, N. Z. pop. 17, with sub. 22.
Inverell (ĭn′vẽr·ĕl′) munic. New S. Wales, Australia, pop. 5.
Inverness (ĭn′vẽr·nĕs′; 66) burgh, × Inverness co. Scotland, pop. 23. — co. Cape Breton isl. Nova Scotia, 1,408 □ pop. 21, × Port Hood. — *or* **Inverness-shire** (-shĭr; -shẽr) co. NW Scotland, Atlantic oc. to N. Sea (Moray firth), 4,088 □ pop. 82, × Inverness.
Inyo (ĭn′yō) co. SE California, 9,991 □ pop. 7, × Independence.
Ioannina (yô·ä′nē·nȧ) *Serb.* **Janina** *or* **Yanina** (yä′nē·nȧ) dept. N Epirus, NW Greece, 2,316 □ pop. 180. — city, its * pop. 20.
Iola (ī·ō′lȧ) city, × of Allen co. Kansas, pop. 7.
Iona (ī·ō′nȧ; ē-) isl. Hebrides isls. Argyll co. Scotland, 6 □; early center of Celtic Church.
Ionia (ī·ō′nĭ·ȧ) co. SW cen. Mich. 579 □ pop. 35. — city, its × pop. 7. — anc. dist. W coast Asia Minor. See IONIAN, *n.*, PHOCAEAN, *adj.*
Ionian Islands (ī·ō′nĭ·ăn) 7 Greek isls. in Ionian sea; Corfu, Paxos, Leukas, Ithaca, Cephalonia, & Zante, off W coast of Greece, & Cerigo S of the Peloponessos, 954 □ pop. 251. — admin. div. of Greece, 742 □ pop. 213; excludes Leukas & Cerigo.
Ionian Sea, part of Mediterranean sea, between Greece & S Italy.
Ios (ī′ŏs) *or* **Nio** (nyē·ô′) isl. Aegean sea, Cyclades dept. Greece, 46 □ pop. 2.
Iosco (ī·ŏs′kō) co. E Michigan, 570 □ pop. 8, × Tawas City.
Iowa (ī′ô·wȧ) state, N cen. U. S. A. 55,586 □ (incl. water, 56,147 □) pop. 2,471, * Des Moines. See HAWKEYE, 2. — co. E cen. Iowa, 583 □ pop. 17, × Marengo. — co. SW Wis. 781 □ pop. 20, × Dodgeville. — riv. Iowa, about 350 m. long, flows into Mississippi.
Iowa City, mfg. city, × of Johnson co. Iowa, pop. 15; University of Iowa.
Iowa Falls, city, Hardin co. Iowa, pop. 4; Ellsworth college.
Iowa Park, town, Wichita co. Texas, pop. 2.
Ipel′ (ē′pĕl) *Hung.* **Ipoly** (ē′pôl·y′) *Ger.* **Eipel** (ī′pĕl) riv. S Czechoslovakia, part of Hung. boundary, 125 m. to Danube.
Ipoh (ē′pō) city, Perak, Federated Malay States, pop. 53.
Ipsus (ĭp′sŭs) vil. S Phrygia, Asia Minor; battle 301 B.C. See BATTLE, *Table.*
Ipswich (ĭps′wĭch) town, Essex co. Mass. pop. 6. — mfg. county bor. × of Suffolk East co. England, pop. 88. — cml. & min. town, SE Queensland, Australia, pop. 22.
Iquique (ē·kē′kā) spt. town, * of Tarapacá prov. Chile, South America, pop. 46.
Iquitos (ē·kē′tōs) city, * of Loreto dept. Peru, on Marañón river, pop. 14.
Iran (ē·rän′; *Eng.* ī·răn′) the Persian name of Persia. — plateau, SW Asia, comprising cen. part of Persia & W parts of Afghanistan & Baluchistan, alt. 3,000 to 5,000 ft.
Irapuato (ē′rä·pwä′tō) city, Guanajuato state, Mexico, pop. 21.
Iraq (ē′räk′) *or* **Irak,** *Ar.* **Al 'Iraq,** Arab. kingdom NE Arabian pen. SW Asia, incl. much of Mesopotamia, 177,148 □ pop. 2,849, * Bagdad. See DINAR, *n.*, MANDAEAN, *n.*
'Iraq 'Arabi (ä′rȧ·bē) *anc.* BABYLO′NIA, lower Mesopotamia, the Tigris-Euphrates valley S of Bagdad, Basra & Baghdad vilayets, Iraq.
'Iraq-i-'Ajam (-ē·ä′jäm) region & prov. W cen. Persia, * Sultanabad.
Irazú (ē′rä·so͞o′; 267) vol. Costa Rica, Cen. Amer. near Cartago, 11,325 ft. high.
Irbit (ēr·bēt′) cml. town S cen. Ural region, Soviet Russia, Asia, pop. 12; annual fair since 1643.
Iredell (īr′dĕl) co. W North Carolina, 588 □ pop. 47, × Statesville.
Ireland (īr′lănd) *L.* HIBER′NIA, one of the British Isles & former div. of United Kingdom, now divided bet. Irish Free State (26,601 □ pop. 2,972) & Northern Ireland (5,237 □ pop. 1,257) 31,837 □ pop. 4,229. See EMERALD ISLE, ERIN, *n.*, SHAMROCK, *n.*, IRISH, *adj.* & *n.*, CELTIC REVIVAL.
Ireng (ē·rĕng′) riv. N trib. of Takutú, ab. 180 m. long; boundary of NE Amazonas, Brazil & W Br. Guiana.
Irgiz (ēr·gēz′) riv. NW Kazak repub. Soviet Russia, Asia, 270 m. SE to Chalkar lake, NE of Lake Aral. — riv. Lower Volga region, Soviet Russia, Europe, 330 m. to Volga.
Iriga (ē·rē′gä) mt. extinct vol. Camarines Sur prov. Luzon, Phil. isls. 4,023 ft. high. — munic. same prov. pop. 24.
Iringa (ē·rĭng′gä) prov. SW Tanganyika, 38,531 □ pop. 493, * Iringa.
Irion (ĭr′ĭ·ŏn) co. W Texas, 998 □ pop. 2, × Sherwood.
Irish Free State (ī′rĭsh) *or* **Saorstat Eireann,** *Gael.* **Saorstát Éireann** (sâr′stôt′âr′ăn) self-governing state of the British Empire, S & cen. Ireland, comprising Leinster, Munster, & Connaught provs. & 3 cos. of Ulster, 26,601 □ pop. 2,972, * Dublin. See (in *Gaz.*) IRELAND, NORTHERN IRELAND. See DAIL EIREANN, FIANNA FAIL, SAORSTAT, *n.*, SINN FEIN.
Irish Sea, part of Atlantic ocean, bet. England & Ireland.
Irkutsk (ēr·ko͞otsk′) cml. city, * of E. Siberia region, Soviet Russia, Asia, on Angara riv. W of Lake Baikal, pop. 99. See BURIAT, *n.*, MONGOL, *n.*
Irlam (ûr′lăm) urban dist. Lancashire, England, pop. 13.
Iron (ī′ẽrn) co. NW Mich. 1,200 □ pop. 21, × Crystal Falls. — co. SE Mo. 553 □ pop. 10, × Ironton. — co. SW Utah, 3,256 □ pop. 7, × Parowan. — co. N Wis. 792 □ pop. 10, × Hurley.
Irondale (ī′ẽrn·dāl) town, Jefferson co. Ala. pop. 2.
Iron Gate *or* **Gates,** *Rum.* **Porţile de Fier** (pôr·tsē′lĕ dĕ fē·ĕr′) *Ger.* **Eisernes Tor** (ī′zẽr·nĕs tōr′) gorge 2 m. long, with rapids, Danube riv. bet. Orşova & Turnu-Severin, Rumania, on Yugoslav boundary.
Iron Mountain, mt. St. François co. Mo. 1,078 ft. high; chiefly good iron ore. — city, × of Dickinson co. Mich. pop. 12. — elevation, 325 ft. high, Polk co. Fla.; highest point in state.

Iron River, vil. Iron co. Mich. pop. 5.
Ironton (ī′ẽrn·tŭn) mfg. city, × of Lawrence co. Ohio, pop. 17.
Ironwood (-wo͝od′) city, Gogebic co. Michigan, pop. 14.
Iroquois (ĭr′ō·kwoi; ĭr′ō·kwoi′) co. E Illinois, 1,121 □ pop. 33, × Watseka.
Iroquois River, about 120 m. long, Jasper co. Ind. to Kankakee riv. Illinois.
Irosin (ē′rô·sēn′) munic. Sorsogon prov. Luzon, Phil. isls. pop. 15.
Irrawaddy (ĭr′ȧ·wŏd′ĭ) riv. Burma, E India, 1,350 m. to E Bay of Bengal. — div. of Lower Burma, 13,460 □ pop. 2,335, * Bassein.
Irtish (ēr·tĭsh′) riv. NE Kazak rep. W. Siberia region, & Ural area, Soviet Russia, Asia, Altai mts. to Ob riv. 2,200 m.; flows through Zaisan Nor.
Irún (ē·ro͞on′) comm. Guipúzcoa prov. Spain, pop. 18.
Irvine (ûr′vĭn) town, × of Estill co. Ky. pop. 4. — burgh, Ayr co. Scotland, pop. 12.
Irvington (ûr′vĭng·tŭn) town, Essex co. N. J. pop. 57. — vil. Westchester co. N. Y. pop. 3; Washington Irving's residence, "Sunnyside."
Irwell (ûr′wĕl) riv. Lancashire, England, flows into Mersey river.
Irwin (ûr′wĭn) co. S Ga. 378 □ pop. 12, × Ocilla. — bor. Westmoreland co. Pa. pop. 3.
Isa (ē′sä) town, Sokoto prov. N. Provs. Nigeria, Afr. pop. 16.
Isabel (ĭz′ȧ·bĕl) isl. British Solomon isls. Pacific ocean, 140 m. long, 2,313 □.
Isabela (ē′sä·bā′lä; 98) prov. NE Luzon, Phil. isls. 4,052 □ pop. 113, * Ilagan. See CATALANGANES, *n.* — munic. Occidental Negros prov. Phil. isls. pop. 20. — munic. NW Puerto Rico, pop. 23. — cape & port, N Hispaniola isl. in Dominican Republic; Columbus's first settlement 1493.
Isabella (ĭz′ȧ·bĕl′ȧ) agr. co. cen. Mich. 572 □ pop. 21, × Mount Pleasant.
Isafjörthur (ē′sä·fyûr·tho͞or) town, NW Iceland, pop. 2.
Isanti (ĭ·săn′tĭ; ī′săn·tĭ) co. E Minn. 442 □ pop. 12, × Cambridge.
Isar (ē′zär) riv. Bavaria, Tirol to Danube, 219 m.; flows through Munich.
Isarog (ē′sä·rōg′) volcanic mt. Camarines Sur prov. Luzon, Phil. isls. 6,481 ft. high.
Isauria (ī·sô′rĭ·ȧ) anc. dist. E Pisidia, Asia Minor. See ISAURIAN, *adj.*
Ischia (ēs′kyä) isl. Napoli prov. Italy, bet. gulfs of Gaeta & Naples, 18 □ pop. 30. — comm. E end of isl. pop. 9; earthquake 1883.
Ise (ē′sĕ) old prov. scen. Honshu, Japan, now part of Miye pref. — **Bay,** *form.* **Owari Bay,** inlet of Pacific, SE Honshu, bet. Miye & Aichi prefs.
Ise Fiord (ē′sĕ) inlet, 20 m. long, N coast Zealand isl. Denmark.
Iseghem (ĭz′ĕ·gĕm; 142) comm. W. Flanders prov. Belgium, pop. 15.
Iseo, Lago d′ (lä′gô dē·zĕ′ô) lake bet. Brescia & Bergamo provs. N Italy, 14 m. long, 24 □.
Iser (ē′zẽr) *Czech* **Jisera** (yē′sĕ·rȧ) riv. 94 m. long, Bohemia, Czechoslovakia, to Elbe riv.
Isère (ē′zâr′) dept. SE France, 3,178 □ pop. 584, * Grenoble. — riv. 150 m. long, France Graian Alps, dept. Savoie to Rhone river.
Iserlohn (ē′zẽr·lōn′) comm. Arnsberg govt. dist. Westphalia, Prussia, pop. 31.
Isernia (ē·zĕr′nyä) comm. Campobasso prov. Abruzzi e Molise, Italy, pop. 16.
Iseyin (ē′sĕ·yēn′) town, Oyo prov. S. Provs. Nigeria, pop. 37.
Isfahan (ĭs′fȧ·hän′; ēs′-) *or* **Ispahan** (ĭs′pȧ·hän′) prov. cen. Persia. — *anc.* ASPADA′NA, mfg. city, its * & former * of Persia, pop. 100. See BAKHTIARI, *n.*
Ishikari (ē′shē·kä′rē) riv. Hokkaido isl. Japan, Ishikari mt. 227 m. W to Ishikari bay on W coast. — mt. cen. Hokkaido, 6,674 ft. high. — old prov. W Hokkaido, Japan.
Ishikawa (ē′shē·kä′wȧ) pref. cen. Honshu, Japan, 1,621 □ pop. 757, * Kanazawa.
Ishim (ĭsh·ēm′) riv. N cen. Kazak repub. & SW Ural area, Soviet Russia, Asia, 1,330 m. to Irtish riv.
Ishpeming (ĭsh′pē·mĭng) min. city, Marquette co. Michigan, pop. 9.
Isis (ī′sĭs) local name for the upper course of Thames riv. England.
Isker *or* **Iskr** (ĭs′k'r) riv. 249 m. long, Bulgaria, Europe, Balkan mts. to Danube river.
Iskilip (ĭs′kĭ·lĭp′) town, on Kizil Irmak, Çorum vilayet, N cen. Turkey, Asia, pop. 10.
Isla Cristina (ēs′lä krĭs·tē′nä) spt. comm. SW Huelva prov. SW Spain, pop. 10.
Island (ēs′lȧnd) *Icelandic* **Ísland,** *Eng.* **Iceland** (īs′lănd). See ICELAND (*Gaz.*).
Island (ī′lănd) co. NW Wash. 208 □ pop. 5, × Coupeville.
Island Falls, town, Aroostook co. Maine, pop. 2.
Island Lake, E Manitoba, Canada, 551 □.
Island No. 10, former isl. Lake co. Tenn. in Mississippi riv.; battles 1862.
Islands, Bay of, inlet E coast of NW pen. N. Isl. New Zealand. — estuary of Humber riv. W Newfoundland.
Islay (ī′lā) isl. of Inner Hebrides, Argyll co. Scotland, 234 □ pop. 5.
Isle of Pines, *Sp.* **Isla de Pinos** (ēs′lä dā pē′nōs) isl. S of Cuba, a munic. of Havana prov. 1,180 □ pop. 9; * Nueva Gerona. — Fr. isl. in Pac. oc. See KUNIE (*Gaz.*).
Isle of Wight (īl ŏv wīt) co. SE Va. 314 □ p. 13. — its ×. — See WIGHT, ISLE OF (*Gaz.*).
Isle Royale (īl′ roi′ăl; *F.* ēl′ rwȧ′yȧl′) isl. NW Lake Superior, to Keweenaw co. Mich. 44 m. long by 8 m. wide; Mich. state park.
Isles of Shoals (shōlz) group of 7 rocky isls. ab. 1 □ 6 m. SE of Portsmouth, N. H.; resort.
Isles of the Sea *or* **Garvelloch Isles** (gär·vĕl′ŭk) group in the Firth of Lorne, W Scotland.
Isle-sur-la-Sorgue, L′ (lēl′sür·lȧ·sôrg′) comm. dept. Vaucluse, France, pop. 6.
Isleta (ēs·lā′tä) town, Bernalillo co. N. Mex. 10 m. S of Albuquerque, pop. 1; Tanoan Indian town.
Isleton (īl′tŭn) town, Sacramento co. Calif. pop. 2.
Islington (ĭz′lĭng·tŭn) met. bor. London, England, pop. 322. See BARTHOLOMEW FAIR.
Islip (ī′slĭp) vil. & town (pop. 21) S Suffolk co. Long Island, N. Y.; summer resort.
Ismail (ēs′mȧ·ēl′) *Russ.* **Tuchkov** (to͞och′kôf) dept. S Bessarabia, Rumania, 1,626 □ pop. 224. — city, its *, pop. 26
Ismailia (ēs′mȧ·ēl′yȧ) town, Canal dist. Egypt, on Lake Timsah, pop. 16; halfway station on Suez canal. — **Canal,** from Nile riv. near Cairo to Suez canal at Lake Timsah.
Isna (ĭs′nȧ) *or* **Esna** (ĕs′nȧ) cml. town, Upper Egypt, on left bank of Nile, pop. 9; ruins.
Isonzo (ē·zôn′tsō) *anc.* SON′TIUS, riv. Venezia Giulia, Italy, S to Gulf of Trieste, 75 m.; forms part of boundary with Venezia.
Isparta (ĭs·pär′tȧ) vilayet, SW Turkey, Asia, 3,194 □ pop. 144. — *form.* **Hamidabad** (hä·mē′dä·bäd′) its *, pop. 16.
Israel (ĭz′rā·ĕl; -rĭ·ĕl) anc. kingdom, N Palestine, * Samaria. See ISRAEL, 2.
Issaquena (ĭs′ȧ·kwē′nȧ) co. W Miss. 406 □ pop. 6, × Mayersville.
Isserville (ēs′ĕr′vēl′) comm. dept. Alger, N Algeria, Africa, pop. 14.
Issiq Köl (ĭs′ĭk kûl′) *Russ.* **Issyk-Kul** (-ko͞ol′) lake (*kul*) NE Kirghiz repub. Soviet Russia, Cen. Asia, 2,250 □.
Issoire (ē′swȧr′) comm. dept. Puy-de-Dôme, France, pop. 7.
Issoudun (ē′so͞o′dŭn′) comm. dept. Indre, France, pop. 12.
Issus (ĭs′ŭs) anc. town, Asia Minor, near Alexandretta; battles 333 B.C., 194 & 622 A.D.
Issy-les-Moulineaux (ē′sē′lā·mo͞o′lē′nō′) *or* **Issy** (ē′sē′) comm. dept. Seine, France, suburb of Paris, near Seine river, pop. 40.
Istanbul (ē′stän·bo͞ol′) *form.* **Constantinople,** vilayet, Turkey, Europe (1,293 □ pop. 623) & Asia (823 □ pop. 171), on both sides of the Bosporus, 2,116 □ pop. 794. — city, its *. See CONSTANTINOPLE (*Gaz.*).
Istres (ēs′trā′) comm. dept. Bouches-du-Rhône, France, pop. 7.
Istria (ĭs′trĭ·ȧ; ēs′tryä) pen. N Adriatic sea, former Austrian crownland, S part of Austr. prov. Küstenland, now Ital. prov. of Pola, Venezia Giulia e Zara. See ISTRIAN, *adj.*
Ita (ē′tä) city, W cen. Paraguay, S. America, pop. 20; near Asunción.
Itajahi (ē′tȧ·zhä·ē′) spt. comm. Santa Catharina state, Brazil, pop. 38.
Italian Somaliland (sō·mä′lē·lănd′) *It.* **Somalia Italiana** (sō·mäl′yä ē′täl·yä′nä) It. col. E Afr. comprises N. Somalia (ters. of the Migiurtini, of the Nogal, & of Obbia) & S. Somalia (form. Benadir) which now incl. Jubaland; 194,000 □ p. 1,011, * Mogadiscio.
Italy (ĭt′ȧ·lĭ) *It.* **Italia** (ē·täl′yä) kingdom S Europe, comprising Sicily, Sardinia, & Italian pen. 119,710 □ pop. 41,177, incl. colonies, 720,000 □ pop. 43,630, * Rome. See 1st LIRA, LATIN UNION, ITALIAN, *adj.* & *n.*, ETRUSCAN, *adj.*, CINQUECENTO, RISORGIMENTO.
Itapicurú (ē·tä′pē·ko͞o·ro͞o′) riv. 350 m. long, Bahia state, Brazil, S. Amer. flows SE to Atlantic oc. — riv. 600 m. long, Maranhão state, Brazil, S. Amer. flows N to Atlantic oc.
Itaqui (ē′tȧ·kē′) munic. (pop. 16) & town (pop. 7) Rio Grande do Sul state, Brazil.
Itasca (ī·tăs′kȧ) co. N Minn. 2,730 □ p. 27, × Grand Rapids. — city, Hill co. Tex., p. 2.
Itasca, Lake, small lake, N Minn., 2 □, elevation 1,460 ft. disc. 1832; incl. creeks ab. 6 m. long received by it, it is the source of the Mississippi riv.; in state park, 35 □.

Indur. See [illegible].
Ingermanland. = INGRIA.
Inghilterra. It. for ENGLAND.
Inglaterra. Sp. for ENGLAND.
Inius. Var. of [illegible].
Inner Hebrides. See HEBRIDES.
Inner Mongolia. See MONGOLIA.
Inner Rhodes. See APPENZELL.
Insulinde. = DUTCH EAST INDIES.
Interamna. See TERNI.
Iolcus. See VOLOS.
Ioshkar-Ola. See MARI.
Ipek. See PEĆ.
Ipsambul. See ABU-SIMBEL.
Ipsara. See PSARA.
Irak. See IRAQ.
Iraq Ajemi. = 'IRAQ-I-'AJAM.
Irawadi. = IRRAWADDY.
Ireland, Northern. See NORTHERN IRELAND.
Iris. See YESIL IRMAK.
Irland. Ger. for IRELAND.
Irlanda. It. & Sp. for IRELAND.
Irlande. Fr. for IRELAND.
Irtysh. = IRTISH.
Is. See HIT.
Isabela de Basilan. See BASILAN.
Isbarta. = ISPARTA.
Isca Damnoniorum. See EXETER.
Isca Silurum. See CAERLEON.
Ischl. = BAD ISCHL.
Ishtib. See STIP.
Isiolo. See NORTHERN FRONTIER PROVINCE.
Iskanderiya. See ALEXANDRIA.
Iskardo. = SKARDU.
Iskelib. = ISKILIP.
Iskenderun. See ALEXANDRETTA.
Isla del Rey. See SAN MIGUEL.
Isla de Pinos. See ISLE OF PINES.
Islas de la Bahia. = BAY ISLANDS.
Isle du Diable. See DEVIL'S ISLAND.
Isle of Ely, Man, etc. See ELY, MAN, etc.
Isle of France. See ILE-DE-FRANCE.
Ismid. See IZMIT.
Isnik. See NICAEA.
Isola Lunga. See DUGI OTOK.
Isole Egadi. See AEGADEAN ISLES.
Isole Egee. See AEGEAN ISLANDS.
Isole Eolie. See LIPARI ISLANDS.
Ispahan. See ISFAHAN.
Issa. See VIS.
Istanköi See COS, GULF OF.
Ister. See DANUBE.
Istib, Istip. Vars. of STIP.
Italia. Sp. for ITALY.
Italie. Fr. for ITALY.
Italien. Ger. for ITALY.

N O P Q R S T U V W X Y Z

Lodore (lō·dōr′; 181) cascade, Cumberland co. Eng. near head of Derwentwater.
Łódź (lōōj) *Russ.* **Lodz** (lōdz) prov. W Poland, 7,349 □ pop. 2,633. — city, its ✻ pop. 605.
Lofoten Islands (lō·fō′tĕn; lōō′fōō′tĕn) group, SW of Vesteraalen, Nordland co. NW Norway, 475 □ pop. 22; prin. isls. Östvaagö, Vestvaagö, Moskenes; valuable fisheries.
Loftus (lŏf′tŭs) urban dist. North Riding, Yorkshire, England, pop. 8.
Logan (lō′găn) co. W Ark. 726 □ pop. 24, ✕ ✕ Booneville & Paris. — co. NE Colo. 1,822 □ pop. 20, ✕ Sterling. — co. cen. Ill. 617 □ pop. 29, ✕ Lincoln. — co. W Kans. 1,082 □ pop. 4, ✕ Russell Springs. — co. S Ky. 643 □ pop. 22, ✕ Russellville. — co. W Nebr. 573 □ pop. 2, ✕ Stapleton. — co. S N. Dak. 997 □ pop. 8, ✕ Napoleon. — co. W Ohio, 451 □ pop. 29, ✕ Bellefontaine. — co. cen. Okla. 739 □ pop. 28, ✕ Guthrie. — co. SW W. Va. 438 □ pop. 59, ✕ Logan. — town, ✕ of Harrison co. Iowa, pop. 2. — mfg. vil. ✕ of Hocking co. Ohio, pop. 6. — city, ✕ of Cache co. Utah, pop. 10; State Agric. college. — city, ✕ of Logan co. W. Va. pop. 4.
Logan, Mount, mt. 19,850 ft. high, SW Yukon ter. Can. next to bigbest mt. in N. Am.
Logan Peak, 9,713 ft. high, Uinta mts. N Utah.
Logansport (lō′gănz·pōrt′) cml. city, ✕ of Cass co. Ind. on Wabasb river, pop. 19.
Logone (lō′gōn′) riv. Fr. Equat. Africa, bet. Chad col. & Cameroons, N to Shari river.
Logroño (lō·grō′nyō) prov. N Spain, 1,946 □ pop. 204. — its ✻ pop. 34.
Loharu (lō·hä′rōō) native state, Punjab states, India, 226 □ pop. 23. — its ✻ pop. 3.
Loir (lwär) riv. France, 195 m. long, from NW dept. Eure-et-Loir to Sarthe river.
Loire (lwär) *anc.* Li′ger, largest riv. in France, 625 m. long, dept. Ardèche to Bay of Biscay. — dept. SE France, 1,852 □ pop. 665, ✻ Saint-Étienne. See Republican marriage.
Loire-Inférieure (-äN′fā′rē·ûr′) dept. NW France, 2,693 □ pop. 652, ✻ Nantes.
Loiret (lwä′rĕ′) dept. N cen. France, 2,629 □ pop. 343, ✻ Orléans.
Loir-et-Cher (lwär′ā·sbâr′) dept. cen. France, 2,478 □ pop. 242, ✻ Blois.
Loiza (lō·ē′zä; 267) munic. NE Puerto Rico, pop. 19. — town in same, pop. 2.
Loja (lō′hä; 162) comm. Granada prov. Spain, near Genil riv. pop. 21. — min. prov. SW Ecuador, South America, 3,705 □ pop. 148. — its ✻ pop. 18.
Lokeren (lōk′ĕr·ĕn) comm. E. Flanders prov. Belgium, pop. 24.
Lokoja (lō·kō′jȧ) town, ✻ of Kabba prov. N. provs. Nigeria, on Niger riv. at moutb of Benue, pop. 8.
Lolland (lŏl′ăn) or **Laaland** (lô′län) isl. S of Zeeland, Denmark, 477 □ pop. 87, with Falster forms Mariho co.
Lomami (lō·mä′mē) riv. Belg. Congo, parallel to Lualaba (Congo) 900 m. N to Congo.
Lomas de Zamora (lō′mäs dā sä·mō′rä) city, Buenos Aires prov. Argentina, pop. 22.
Loma Tina (lō′mä tē′nä) mt. S Dominican Republic, 10,300 ft.; bigbest in the West Indies.
Lombard (lŏm′bärd) vil. Du Page co. Ill. pop. 6.
Lombardy (lŏm′bẽr·dĭ; lŭm′-) *It.* **Lombardia** (lôm′bär·dē′ä) dept. N Italy, comprising 9 provs. Bergamo, Brescia, Como, Cremona, Mantova, Milano, Pavia, Sondrio, & Varese, 9,190 □ pop. 5,540, ✻ Milan. See league, *Table*, 1st Lombard.
Lombartzyde (lŏm′härt·zī′dĕ) comm. W. Flanders, Belg. near Nieuport, pop. 1; bats.1914.
Lomblen (lŏm′blĕn′) isl. N of W end of Timor isl. Malay archipelago, 468 □; Dutch.
Lombok (lŏm′bŏk′) isl. Bali & Lombok prov. Du. E. Indies, 1,811 □ pop. 618, ✻ Mataram. See Sassak, *n.*, Wallace's Line.
Lomé (lō′mā′; lō′mā) spt. town, ✻ of Fr. Togo, W Africa, pop. 8; form. ✻ of Togo.
Lomme (lôm) comm. dept. Nord, France, pop. 21.
Lommel (lŏm′ĕl) comm. Limburg prov. Belgium, pop. 10.
Lomond, Loch (lō′mŭnd) lake, Stirling & Dumbarton cos. Scotland, 27¼ □.
Lom-Palanka (lôm′pȧ·läng′kȧ) comm. Vidin dept. Bulgaria, on Danube riv. pop. 14.
Lompoc (lŏm·pōk′) city, Santa Barbara co. California, pop. 3.
Łomża (lôm′zhä) comm. Białystok prov. Poland, pop. 25.
Lonaconing (lō′nȧ·kō′nĭng) min. vil. Allegany co. Maryland, pop. 2.
Lonato (lō·nä′tō) comm. Brescia prov. Lombardy, Italy, pop. 9; hattle 1796.
Londerzeel (lŏn′dẽr·zāl′) comm. Brahant prov. Belgium, pop. 7.
London (lŭn′dŭn) town, ✕ of Laurel co. Ky. pop. 2. — vil. ✕ of Madison co. Obio, pop. 4. — cml. & mfg. city, ✕ of Middlesex co. Ontario, Can. on Thames riv. pop. 71; cathedrals. — admin. co. comprising tbe City of London & the 28 metropolitan bors., ✻ of the United Kingdom & of the Britisb Empire, 117 □ pop. 4,397. —, **City of,** *anc.* Londin′ium, the old city, now in the business and financial dist. 1 □ (677 acres) pop. 11. See City, the. —, **Greater,** the metropolitan police area, incl. London co. & tbe Outer Ring (Middlesex co. & parts of Essex, Kent, Surrey, & Hertfordshire, 576 □ pop. 3,809), 693 □ pop. 8,204. See Charing Cross, Cheapside, *n.*, City of Masts, Covent Garden, Downing Street, East (& West) End, Grub Street, Lombard Street, Pall-Mall, 3, Piccadilly, Rotten Row, etc.
Londonderry (lŭn′dŭn·dẽr′ĭ; -dẽr·ĭ) or **Derry,** co. Northern Ireland, 816 □ pop. 140. — co. hor., its ✕ a port, on Foyle riv. pop. 45.
Lone Cone, peak, La Plata mts. SW Colorado, 12,761 ft. high.
Long (lŏng; 185) co. SE Georgia, 393 □ pop. 4, ✕ Ludowici.
Long, Loch, branch, 16 m. long, of Firth of Clyde, Scotland.
Long Beach, city, Los Angeles co. Calif. pop. 142. — city, Nassau co. N. Y. pop. 6.
Longbenton (lŏng′hĕn′tŭn) urban dist. Northumherland co. Eng. pop. 14.
Long Branch, city, Monmouth co. N. J. pop. 18; seaside summer resort. — town, York co. Ontario, Can. pop. 4.
Longchamp (lôN′shäN′) site of an ancient abbey in the Bois de Boulogne (a great park just outside Paris on the W), now a famous race course. See Bois de Boulogne, grand prix, 2.
Long Eaton, urhan dist. Derbyshire, England, near Nottingham, pop. 22.
Longford (lŏng′fẽrd) co. Leinster prov. Irish Free State, 403 □ pop. 40. — its ✕ pop. 4.
Long Island, isl. SE N. Y. 118½ m. long, greatest width 23 m. comprising Suffolk, Nassau, Queens, & Kings cos. 1,682 □ pop. 4,104; hattle 1776. — collective name of Outer Hebrides. — *or* **Long Cay** (kē) isl. 130 □, Bahama islands, pop. 5.
Long Island City, former city, Queens co. N. Y. now part of Queens bor. N. Y. city.
Long Island Sound, 110 m. long, between Conn. and N sbore of Long Island.
Longjumeau (lôN′zhü′mō′) comm. dept. Seine-et-Oise, France, Paris, p. 3; peace 1568.
Long Lake, 16 m. long, NE Hamilton co. N. Y. in Adirondack mountains.
Longmeadow (lŏng′mĕd′ō) town, Hampden co. Mass. adjoins Springfield on S, pop. 4.
Longmont (lŏng′mŏnt) city, Boulder co. Colorado, pop. 6.
Longos (lŏng′gŏs) *anc.* Sitho′nia, mid. pen. of the Chalcidice, Tbessaly, Greece, 31 m. long.
Long Prairie vil. ✕ of Todd co. Minn. pop. 2.
Longs Peak, 14,255 ft. high, Rocky mts. Grand co. N Colorado.
Longueuil (lôN′gü′y′) city, ✕ of Chamhly co. Quebec, Canada, pop. 5.
Longueval (lôN′vȧl′) vil. dept. Somme, France, 7 m. ENE of Albert; battle 1916.
Longuyon (lôN′gü′yôN′) comm. dept. Meurthe-et-Moselle, France, pop. 6.
Longview (lŏng′vū′; 185) city, ✕ of Gregg co. Texas, pop. 5. — city, Cowlitz co. Wash. pop. 11.
Longwy (lôN′wē′) ft. comm. dept. Meurthe-et-Moselle, France, pop. 15.
Longyear City (lŏng′yẽr′) vil. on Advent bay, Ice fiord, W Spitsbergen (Svalbard), pop. 1; coal mines.
Lonigo (lō·nē′gō) comm. Vicenza prov. Venezia, Italy, pop. 12.
Lonneker (lŏn′ĕ·kẽr) comm. Overijssel prov. Netherlands, pop. 31.
Lonoke (lō′nōk) co. cen. Ark. 807 □ pop. 34. — its ✕ pop. 2.
Lons-le-Saunier (lôN′lē·sō′nyā′) comm. ✻ of dept. Jura, France, pop. 14.
Loochristi (lō·krĭs′tē) comm. E. Flanders prov. Belgium, pop. 5.
Loogootee (lō·gō′tē) city, Martin co. Indiana, pop. 2.
Lookout, Cape, Carteret co. N. C. — Tillamook co. Oregon.
Lookout Mountain, range in Ga. Tenn. & Ala. highest point 2,126 ft.; battle 1863.
Loon (lō·ōn′) munic. Bohol prov. Phil. isls. pop. 24.
Loon op Zand (lōn′ ŏp zänt′) comm. N. Brabant prov. Netherlands, pop. 10.
Loop Head (lōōp) headland, Clare co. Ireland, N shore of entrance of Shannon river.
Loos (lōōs′) comm. dept. Nord, France, pop. 14. — comm. dept. Pas-de-Calais, France, near Lens, pop. 6; battle 1915. —, **Îles do** (ēl′ dē). See Los Islands (*Gaz.*).
Loosduinen (lōz·doi′nĕn) part of Hague comm. S. Holland prov. Neth. pop. 11.
Lopatka (lō·păt′kȧ) cape, S point of Kamchatka on Kuril strait.
Lop, *or* **Lob, Nor** (lŏp′ nôr′, lŏb′) either of 2 shallow basins, ab. 39° 30′ N, 89° E & 40° 30′ N, 90° E, E Sinkiang, China, which alternately (period 1,500 yrs.) receive the Tarim riv.
Lora del Río (lō′rä dĕl rē′ō) comm. Sevilla prov. Spain, pop. 11.
Lorain (lō·rān′) co. N Ohio, 497 □ pop. 109, ✕ Elyria. — city, Lorain co. Ohio, pop. 45.
Loralai (lō′rȧ·lī′) dist. of Brit. Baluchistan, 7,525 □ pop. 86. — cantonment, its ✻ pop. 4.
Lorca (lôr′kä) comm. Murcia prov. Spain, pop. 60.
Lord Howe Island (bou) isl. Pacific oc. 31° 30′ S, 159° E, 5 □; to New South Wales, Australia. See Howea, *n.*
Lordsburg (lôrdz′hûrg) vil. ✕ of Hidalgo co. N. Mex. pop. 2; mining.
Lorelei (lō′rĕ·lī) or **Lurlei** (lōōr′lī) rock on rt. hank of Rhine, near Sankt Goar; ab. 440 ft. above river. See Lorelei, *n.*
Loreo (lō·rā′ō) comm. Rovigo prov. Venezia, Italy, pop. 11.
Loreto (lō·rā′tō) comm. Ancona prov. Marches, Italy, pop. 7. See Holy House, Loretto nuns. — dept. NE Peru, 163,240 □ p. 150, ✻ Iquitos.
Lorica (lō·rē′kä) spt. town, Bolívar dept. N Colombia, S. Amer. pop. 26.
Lorient (lō′rē′äN′) spt. city, dept. Morhihan, France, pop. 43.
Lorne, Firth of (lôrn) channel bet. Mull isl. & mainland, Argyll co. Scotland.
Lörrach (lûr′äK) comm. Freihurg dist. Baden, Germany, pop. 16.
Lorraine (lō·rān′) *Ger.* **Lothringen** (lōt′rĭng·ĕn) medieval kingdom, W Europe, valleys of Rhine, Meuse, & Moselle. — *or* **Upper Lorraine,** duchy, S part of kdm.; later div. of France, now dept. of Moselle. See Alsace-Lorraine (*Gaz.*), archduke, *n.*, Middle Kingdom c.
Los Angeles (lŏs ăng′gĕl·ĕs; lŏs ăn′jĕl·ĕs, -ēz; *Sp.* lōs äng′hā·läs; 142) co. S Calif. 4,115 □ pop. 2,208. — city, its ✕ pop. 1,238; Univ. of S. California; Univ. of Calif. (S branch). See Hollywood.
Los Banos (lŏs bä′nŏs) city, Merced co. Calif. pop. 2.
Los Gatos (lŏs gä′tŏs) town, Santa Clara co. California, pop. 3.
Los Islands (lŏs) or **Îles de Loos** (ēl′ dē lō′ŏs′) isl. group near Conakry, SW Fr. Guinea, Fr. W. Afr., 6 □ pop. 2; form. Br.
Losser (lŏs′ẽr) comm. Overijssel prov. Netherlands, pop. 15.
Lossiemouth (lŏs′ĭ·mouth) hurgb, Moray co. Scotland, pop. 4.
Lost Park Mountain, peak, Park range, Colorado, 11,800 ft. high.
Lot (lŏt) *anc.* Ol′tis, riv. France, 300 m. long, Lozère mts. to Garonne riv. — dept. SW France, 2,017 □ pop. 167, ✻ Cabors.
Lota (lō′tä) min. town & spt. Concepción prov. Chile, S. Amer. pop. 25.
Lotbinière (lō′bē′nyâr′) co. E Quebec prov. Canada, pop. 23, ✕ Ste. Croix.
Lot-et-Garonne (lŏ′-tā·gȧ′rôn′) dept. SW France, 2,078 □ pop. 248, ✻ Agen.
Lotharingia (lō′thȧ·rĭn′jĭ·ȧ) early name of med. kingdom of Lorraine.
Lothians, The (lō′thĭ·ănz; lō′thĭ-) div. of Scotland, comprising East Lothian, Midlothian, and West Lothian cos. See 6tb Lot, Scottish Standard dialect.
Lötschberg (lûch′hĕrK) railway tunnel, 9 m. long, alt. 4,080 ft. under **Lötschen Pass,** alt. 8,840 ft. Bernese Alps, Bern & Valais cantons, Switzerland.
Lot's Wife (lŏts) rock, Pacific ocean, near 30° N, 140° E.
Lötzen (lût′sĕn) comm. Allenstein govt. dist. E. Prussia, pop. 11.
Loudéac (lōō′dā′ăk′) comm. dept. Côtes-du-Nord, France, pop. 5.
Loudon (lou′dŭn) co. E Tennessee, 219 □ pop. 18. — town, its ✕ pop. 3.
Loudonville (-vĭl) vil. Ashland co. Ohio, ahout 18 m. SE of Mansfield, pop. 2.
Loudoun (lou′dŭn) co. N Virginia, 519 □ pop. 20, ✕ Leesburg.
Loudun (lōō′dûN′) comm. dept. Vienne, France, pop. 5.
Loughborough (lŭf′bŭ·rŭ) mfg. mun. bor. Leicestershire, England, pop. 27.
Loughton (lou′t′n) urban dist. Essex co. England, pop. 7.
Louisa (lōō·ē′zȧ) co. SE Iowa, 396 □ pop. 12, ✕ Wapello. — co. cen. Va. 516 □ pop. 14, ✕ Louisa. — town, ✕ of Lawrence co. Ky. pop. 2.
Louisburg (lōō′ĭs·hûrg) town, ✕ of Franklin co. N. C. pop. 2. — spt. Cape Breton, Nova Scotia, Canada, pop. 1; formerly strongly fortified by France; captured by colonial troops in 1745 & hy British in 1758.
Louise, Lake (lōō·ēz′) small lake, near Banff, S Alberta, Can. alt. 5,670 ft.; noted resort.
Louisiade Archipelago (lōō·ē′zē·ăd′) isl. group, Papua ter. SE of New Guinea, 100 □ p. 3.
Louisiana (lōō·ē′zĭ·ăn′ȧ) state, S U. S. A. 45,409 □ (incl. water, 48,506 □) pop. 2,102, ✻ Baton Rouge. Abbr. *La.* See Confederate States of America, Creole State, Pelican State, parish, *n.*, 4. — city, Pike co. Mo. p. 4.
Louis Philippe Peninsula (lōō′ē′ fē′lēp′) NE N. Graham isl. Antarctic archip.
Louisville (lōō′ĭs·vĭl; lōō′ĭ·vĭl) town, Boulder co. Colo. pop. 2. — city, ✕ of Jefferson co. Ga. pop. 2. — cml. & mfg. city, ✕ of Jefferson co. Ky. pop. 308; university. — town, ✕ of Winston co. Miss. pop. 3. — vil. Stark co. Ohio, pop. 3.
Louny (lō′nē) *Ger.* **Laun** (loun) comm. NW Bohemia, Czechoslovakia, Europe, pop. 12.
Loup (lōōp) riv. Nehr. 300 m. E to Platte riv.; formed by North, Middle, & South Loup rivs. — co. cen. Nebr. 576 □ pop. 2, ✕ Taylor.
Lourches (lōōrsb) comm. dept. Nord, France, on Scbeldt river, p. 6; coal mines.
Lourdes (lōōrd) comm. dept. Hautes-Pyrénées, France, p. 11; place of pilgrimage.
Lourenço Marques (lō·rĕn′sō mär′kĕs; *Port.* lō·rĕN′sōō mär′kāsʹ) the S dist. of Mozambique, SE Africa, 28,800 □ p. 474. — spt. on Delagoa hay, its ✻ & ✻ of Mozambique, p. 37.
Louth (louth) co. Leinster prov. Irish Free State, 317 □ pop. 63, ✕ Dundalk. — (*pron.* louth) mun. bor. The Parts of Lindsey, Lincolnshire, England, pop. 10.
Louvain (lōō′văN′) comm. Brabant prov. Belgium, pop. 39; bomharded Aug. 25, 1914. See architecture, *Chart*.
Louvière, La (lȧ lōō′vyâr′) comm. Hainaut prov. Belgium, pop. 24.
Louviers (lōō′vyā′) comm. dept. Eure, France, pop. 10.
Louvroil (lōō′vrō′ēl′) comm. dept. Nord, France, pop. 6.
Lovat (lō·vät′y′) riv. 320 m. long, W Soviet Russia, Europe; flows N into Lake Ilmen.
Lovcen (lôv′tyĕn) or **Lovchen** (-chĕn) mt. S Zeta co. Yugoslavia, Europe, 5,771 ft.
Love (lŭv) co. S Oklahoma, 514 □ pop. 10, ✕ Marietta.
Lovech (lō′vĕch) comm. Pleven dept. Bulgaria, pop. 9.
Loveland (lŭv′lănd) city, Larimer co. Colo. p. 6. — vil. Clermont & Hamilton cos. Ohio, p. 2.
Lovell (lŭv′ĕl) town, Big Horn co. Wyoming, pop. 2.
Loving (lŭv′ĭng) co. W Texas, 753 □.
Lovosice (lō′vō·sĭt·sĕ) *Ger.* **Lobositz** (lō′bō·zĭts) comm. NW Bohemia, Czechoslovakia, Eur., on the Labe riv. pop. 5; battle 1756.
Low Countries, low region on North sea, mod. Netherlands, Belgium, & Luxemburg.
Lowe, Mount (lō) peak in Sierra Madre, Calif. 5,601 ft. high; railroad; tourist resort.
Lowell (lō′ĕl) mfg. city, a ✕ of Middlesex co. Mass. pop. 100; cotton mills. — vil. Kent co. Mich. pop. 2. — town, Gaston co. N. C. pop. 2.
Lowellville (-vĭl) vil. Mahoning co. Ohio, on Mahoning river, pop. 3.
Lower Austria, *Ger.* **Niederösterreich** (nē′dẽr·û′stẽr·rīK′) prov. E Austria, 7,452 □ pop. (witbout Vienna) 1,479, ✻ Vienna. See Vienna (*Gaz.*).
Lower Bavaria, *Ger.* **Niederbayern** (nē′dẽr·bī′ẽrn) govt. dist. SE Bavaria, 4,147 □ pop. 756, ✻ Landshut.
Lower California, *Sp.* **Baja California** (bä′hä kä′lē·fôr′nyä) ter. Mexico, a peninsula between Pacific ocean & Gulf of Calif. 58,338 □ pop. 94, ✻ N dist. Mexicali, S dist. La Paz.
Lower Canada, old name of Quebec prov. Canada, exclusive of the part annexed in 1912, N of the Hamilton & Eastmain rivers. See British North America Act, 1867.
Lower Chindwin (chĭn′dwĭn′) dist. Sagaing div. Burma, Br. Ind. 3,681 □ pop. 383, ✻ Monywa.
Lower Franconia (frăng·kō′nĭ·ȧ) *Ger.* **Unterfranken** (ōōn′tẽr·fräng′kĕn) govt. dist. NW Bavaria, Ger. 3,260 □ p. 763, ✻ Würzburg.
Lower Hutt (hŭt) bor. of Wellington, New Zealand, pop. 8.
Lower Silesia (sī·lē′shĭ·ȧ; -shȧ) *Ger.* **Niederschlesien** (nē′dẽr·shlā′zĭ·ĕn) prov. SE Prussia, Germany, 10,274 □ pop. 3,132, ✻ Breslau.
Lower Volga, region, SE Soviet Russia, Eur. NW of Caspian sea, 126,843 □ pop. 5,343, ✻ Stalingrad; incl. German Volga repub. & Kalmuck auton. area.
Lowestoft (lōs′tŏft; -tŭft; *locally* -tŭf) spt. mun. bor. Suffolk East, England, pop. 42; fishing port & watering place; most easterly point in England; naval battle 1665. See Lowestoft ware.
Łowicz (lō′vĭch) comm. Warszawa prov. Poland, pop. 18.
Lowndes (lounz) co. S cen. Ala. 739 □ pop. 23, ✕ Haynesville. — co. S Ga. 483 □ pop. 30, ✕ Valdosta. — co. E Miss. 499 □ pop. 30, ✕ Columbus.
Lowville (lou′vĭl) vil. ✕ of Lewis co. New York, pop. 3.
Loyalty Islands, group, Pacific ocean, E dep. of New Caledonia, 800 □ pop. 11; French.
Lozère (lō′zâr′) dept. S France, 1,996 □ pop. 102, ✻ Mende. — mt. range in Cévennes mts. dept. Lozère; highest Pic de Finiels, about 5,585 ft.
Lualaba (lōō′ä·lä′bä) *Fr.* **Loualaba,** riv. SE Belgian Congo, Afr. a headstream of the Congo, ab. 400 m.; upper Congo to Stanley Falls, 1,000 m., often called Lualaba. See Batetela, *n.*
Luang Prabang (lōō·äng′ prä·bäng′) native state, N Laos, Fr. Indo-China, pop. 198. — town, its ✻, on the Mekong, pop. 20.

Loemadjang. See Lumajang. **Lomond, Mt.** See Ben Lomond. **Londinium.** See London. **Loochoo.** See Ryukyu.	**Lopadusa.** See Lampedusa. **Lord Howe Islands.** See Ontong Java. **Losinj.** See Lussino.	**Losoncz.** See Lucenec. **Losuia.** See Trobriand Islands. **Lothringen.** See Lorraine. **Loualaba.** See Lualaba.	**Loughor.** See Llwchwr. **Loutro.** See Phoenix. **Low Archipelago.** See Tuamotu Archipelago.	**Löwonberg.** See Siebenbergen. **Lowor Burma, Burgundy,** etc. See under Burma, etc. [Lakes.] **Lower Klamath.** See Klamath	**Lower Tunguska.** See Tunguska, Nizhnyaya. **Lo-yang.** See Honanfu **Lua-ngiua.** = Ontong Java.

Maidenhead (mād′'n·bĕd) mun. bor. Berkshire, England, on Thames river, pop. 18.
Maidens (mād′'nz) group of rocks, E coast of Antrim co. Ireland, in Irish sea.
Maidstone (mād′stŭn; -stōn) cml. mun. bor. × of Kent co. England, pop. 42.
Maiduguri (mī′dōō·gōō′rē) town, ✻ of Bornu prov. NE Northern provs. Nigeria, pop. incl. Yerwa, 24.
Maihar (mī′hâr) state, Baghelkhand, Cen. India Agency, India, 407 □ pop. 69. — town in same, pop. 8.
Maikop (mī′kŏp) city, SW N. Caucasus region, Soviet Russia, Europe, pop. 53; oil fields.
Maimachen (mī′mȧ·chĕn′) *or* **Altan Bulak** (äl·tän′ bōō·läk′) cml. town, N Mongolia, opp. Kyakhta in Buryat-Mongol rep. — town, Mongolia, sub. of Urga, pop. 5.
Main (mān; *Ger. pron.* mīn) riv. N Bavaria, Ger., 305 m. W past Frankfurt am Main to Rhine riv. at Mainz. — (*pron.* mān) riv. Antrim co. Ireland, to Lough Neagh.
Maine (mān) state, NE U. S. A. 29,895 □ (incl. water, 33,040 □) pop. 797, ✻ Augusta. See LUMBER STATE, PINE-TREE STATE. — (mân) riv. 8 m. long, fr. union of Sarthe & Mayenne rivs. to Loire, Maine-et-Loire, Fr. — *or* **Le Maine** (lē mân′) anc. prov. W France; its ✻ was Le Mans.
Maine-et-Loire (mâ′-nā·lwȧr′) dept. W France, 2,811 □ pop. 476, ✻ Angers.
Mainland (mān′lănd) chief isl. Shetland isls. Scotland, ab. 225 □ pop. 15, chief town Lerwick. — chief isl. Orkney isls. See POMONA (*Gaz.*). — chief isl. Japan. See HONSHU (*Gaz.*).
Mainpuri (mīn·pōō′rē) dist. Agra div. United Provs. Br. India, 1,674 □ p. 750. — its ✻ p. 16.
Mainz (mīnts) *Fr.* **Mayence** (mȧ′yäns′) *anc.* MOGONTI′ACUM, *or* MOGUN′TIA, ft. city, ✻ of Rheinhessen prov. Hesse, Germany, on Rhine at mouth of Main riv. pop. 109. See ELECTOR, 2; MEISTERSINGER.
Maio *or* **Mayo** (mä′yō) isl. Cape Verde isls. Atlantic oc. 82 □ pop. 2.
Maipo (mī′pō) riv. Santiago prov. Chile, Maipo mt. to Pacific oc. 155 m. — *or* **Maipu** (-pōō) volcano, Andes mts. bet. Argentina & Chile, 17,356 ft.
Maisi (mī′sē) *or* **Maysi, Cape,** E end of Cuba.
Maison-Carrée (mâ′zôN′kȧ′rā′) comm. dept. Alger, N Algeria, pop. 24.
Maisonneuve (mâ′zô′nûv′) co. on Montreal isl. Quebec, Can. pop. 116.
Maisons-Alfort (mâ′zôN′-zȧl′fôr′) comm. dept. Seine, France, pop. 31.
Maisons-Lafitte (mâ′zôN′lȧ′fēt′) comm. dept. Seine-et-Oise, France, pop. 14.
Maitland, East and West (māt′lănd) munic. E New South Wales, Australia, pop. 12. — town, SW Cape prov. U. of S. Af. suburb of Cape Town, pop. (white) 3.
Majdal, El (ĕl mŭj′dȧl) *Bib.* MIG′DALGAD, spt. town, Gaza subdist. S. dist. Palestine, pop. 6. — See MAGDALA (*Gaz.*).
Majma′a (maj′mȧ·ä′) town, N end of Jebel Tuwaiq, E Nejd, Arabia, pop. 18.
Major (mā′jēr) co. NW Oklahoma, 937 □ pop. 12, × Fairview.
Majorca (mȧ·jôr′kȧ) *Sp.* **Mallorca** (mäl·yôr′kä) *anc.* BALEA′RIS MA′JOR, largest of Balearic isls. Spain, Mediterranean sea, 1,352 □ pop. 292, ✻ Palma. See BALEARIC, *adj.*
Majuba Hill (mȧ·jōō′bȧ) NW Natal, U. of South Africa; Boers defeated British 1881.
Majunga (mȧ·jŭng′gä) spt. town, NW coast Madagascar, pop. 20.
Makalu (mä·kä′lōō) mt. SE of Mt. Everest, Himalayas, Nepal, 27,790 ft. high.
Makatea (mä′kȧ·tā′ȧ) chief isl. of Tuamotu arch. Fr. Oceania, pop. 1; phosphate mines.
Makawao (mä′kä·wä′ō) dist. cen. Maui isl. Maui co. Hawaii, pop. 17.
Makhach-Kala (mȧ·käch′·kȧ·lȧ′) *form.* **Petrovsk** (pyĕ·trôfsk′) city, ✻ of Dagestan rep. SE Soviet Russia, Eur. p. 32, on E coast.
Mako (mä′kō′) *or* **Makun** (mä′kōōn′) chief town, Pescadores isls. SW Formosa, pop. 22; harbor.
Makó (mŏ′kō′) city, × of Csanád, Arad és Torontál co. Hungary, on Mureş river, pop. 36.
Makran (mȧ·krän′) *or* **Mekran,** SW div. of Kalat state, Baluchistan, India, 23,269 □ pop. 72. — prov. SE Persia, ✻ Jask.
Makronesos (mä′krō·nē′sŏs) *anc.* HEL′ENA, isl. 10 m. long, 7 □, Aegean sea, off SE coast of Attica, Greece.
Maktar (mȧk′tȧr′) *anc.* MACTARIS, town, N cen. Tunisia, Africa.
Malabar (măl′ȧ·băr; 66) dist. Madras, Br. India, 5,794 □ p. (incl. Laccadive isls.) 3,534, ✻ Calicut. — **Coast,** SW coast of India, incl. Malabar & S. Kanara dist. of Madras, Travancore, & Cochin.
Malabon (mä′lä·bōn′) munic. Rizal prov. Luzon, Phil. isls. pop. 22.
Malacatán (mä′lä·kä·tän′) town, SW Guatemala, Cen. Amer. pop. 15.
Malacca (mȧ·lăk′ȧ) settlement, Straits Settlements, Br. Malaya, on W coast Malay pen. 721 □ pop. 187. — spt. munic. its ✻, pop. 38. — **Central,** dist. cen. Malacca, pop. 45; environs of Malacca munic.
Malacca, Strait of, 35–185 m. wide, bet. Malay pen. & Sumatra.
Malad (mȧ·lăd′) vil. × of Oneida co. Idaho, pop. 3. — riv. Idaho & Utah, Oneida co. Idaho to Bear river.
Maladetta (mä′lä·dĕt′tä) of mts. in cen. Pyrenees; highest Pic de Nétbou, 11,165 ft.
Málaga (mä′lä·gä; *Angl.* măl′ȧ·gȧ) maritime prov. S Spain, 2,812 □ pop. 613. — *anc.* MAL′ACA, its ✻ a cml. mfg. & spt. city, 65 m. ENE of Gibraltar, pop. 188. See MALAGA, *n.*
Malagarasi (mä′lȧ·gȧ·rä′zē) riv. W Tanganyika Ter. E Afr. 100 m. to Lake Tanganyika.
Malaita (mȧ·lä′tȧ) isl. 2,000 □, SE Solomon isls.; British.
Mala Kajnardža (mä′lȧ kī·när′jȧ). = KÜCHÜK KAINARJA.
Malakand Agency (măl′ȧ·kŭnd′) North-West Frontier Prov. Br. India, pop. 866; includes tribal areas of Dir, Swat, & Chitral. — **Pass,** North-West Frontier Prov. Br. India, from N Peshawar dist. to Swat valley.
Malakoff (*F.* mȧ′lȧ′kôf′) comm. dept. Seine, France, near Paris, pop. 27. — *Russ.* **Malakhov** (mȧ·lä′kôf) fortification of Sevastopol, Crimea, Europe; taken by the French 1855.
Malancourt (mȧ′läN′kōōr′) vil. dept. Meuse, France, NW of Verdun; battles 1916.
Malang (mä′läng′) res. E. Java prov. Du. E. Ind. 1,441 □ pop. 1,136. — city, its ✻ pop. 87.
Mälar (mā′lär) lake, 440 □, Sweden, extends 70 m. in from Baltic sea.
Malasiqui (mä′lä·sē′kē) munic. Pangasinan prov. Luzon, Phil. isls. pop. 23.
Malatya (mä·lä′tē·ä) vilayet E Turkey, Asia, 6,072 □ pop. 307. — *anc.* MELITE′NE, town, its ✻, pop. 21.
Malay Archipelago (mȧ·lā′; mā′lā) *or* **Malaysia** (mȧ·lā′shȧ; -zhȧ) the largest of isl. groups, SE of Asia, bet. Pacific & Ind. oceans, the isls. of the East Indies, incl. Sumatra, Java, Timor, New Guinea, Borneo, Celebes, Philippine isls.
Malaybalay (mä′lī·bä′lī) munic. ✻ of Bukidnon prov. Phil. isls. pop. 10.
Malayer (mä·lä′yĕr) prov. W Persia, ✻ Daulatabad.
Malay Peninsula *or* **Malaya** (mȧ·lā′ȧ) *anc.* CHERSONE′SUS AU′REA, an arm of SE Asia S of 10° N, 70,000 □, comprises Br. Malaya & part of Siam; the S tip of the Asiatic mainland. See MALAY, *n.*, MALAYAN, *adj.*
Malay States, the native states of the S Malay pen. under Siamese or Br. protection; Br., 52,003 □ pop. 3,250, incl. the Fed. Malay States & 5 nonfed. states (Unfed. Malay States); Siamese, ab. 7,000 □ pop. 375, chief states Patani & Setul. See BRITISH MALAYA (*Gaz.*).
Malda (mäl′dȧ) dist. Rajshahi div. Bengal, Br. Ind. 1,764 □ pop. 1,054, ✻ English Bazar.
Maldegem (mäl′dĕ·gĕm; 142) comm. E. Flanders prov. Belgium, pop. 11.
Malden (môl′dĕn) mfg. city, Middlesex co. Mass. pop. 58. — city, Dunklin co. Mo. pop. 2. — guano isl. Line isls. in S Pacific ocean, 4° S, 155° W, 35 □; Br.
Maldens (The) and Coombe (môl′dĕnz, kōōm) urban dist. Surrey co. England, pop. 23.
Maldive Islands (măl′dīv) coral isls. Indian oc. SW of India, 115 □ pop. 79; sultanate, dep. of Ceylon. See MALDIVIAN.
Maldon (môl′dŭn) mfg. mun. bor. Essex co. England, pop. 7.
Maldonado (mäl′dō·nä′thō; 112) dept. Uruguay, 1,587 □ pop. 58. — spt. town, its ✻, pop. 6; resort. — city, Peru. See PUERTO MALDONADO (*Gaz.*).
Malegaon (mä′lā·gä′ōn) town, Central div. Bombay pres. Br. India, pop. 24.
Malekula (mä′lā·kōō′lä) *or* **Mallicolo** (mäl′ē·kō′lō) isl. New Hebrides, Oceania, 980 □ pop. 12.
Maler Kotla (mä′lēr kōt′lȧ) state, Punjab States, India, 165 □ pop. 83. — its ✻ pop. 25.
Malheur (mȧ·lōōr′) co. SE Oregon, 9,883 □ pop. 11, × Vale. — riv. Ore. trib. of Snake riv.
Malinche (mä·lēn′chā) mt. Tlaxcala & Puebla states, Mexico, 13,460 ft. high.
Malindi (mä·lēn′dē) spt. town, Kenya prot. pop. 2; early ✻ of Port. E. Afr.; nearby ruins of anc. Gedi.
Malines (mȧ′lēn′) *Flem.* **Mechelen** (mĕκ′ĕ·lĕn) *Eng.* **Mechlin** (mĕk′lĭn) comm. Antwerp prov. Belgium, pop. 60. See MECHLIN LACE.
Malinzin (mä′lēn·tsēn′) mt. Tlaxcala state, Mexico, 14,632 ft.

Malitbog (mä·lēt′bōg) munic. Leyte prov. Phil. isls. pop. 16.
Mallawi (mȧl·lä′wē) town, Asyut prov. Upper Egypt, pop. 20.
Mallow (măl′ō) town, Cork co. Irish Free State, on Blackwater river, pop. 5.
Malmaison (mȧl′mȧ′zôN′) château ab. 7 m. W of Paris, Fr.; res. of Empress Josephine (1763–1814); later the res. of Maria Christina, of Spain, & of the Empress Eugénie.
Malmédy (mȧl′mȧ′dē′) comm. E Liege prov. Belgium, p. 5. See EUPEN-ET-MALMÉDY (*Gaz.*).
Malmesbury (mämz′bēr·ĭ) mun. bor. Wiltshire, England, pop. 2; William of Malmesbury was a monk at the abbey here. — town, SW Cape prov. U. of S. Africa, pop. (white) 3.
Malmö (mălm′û′) ft. spt. city, ✻ of Malmöhus prov. Sweden, pop. 130.
Malmöhus (mălm′û·hüs′) prov. SW Sweden, 1,871 □ pop. 512, ✻ Malmö.
Malo-les-Bains (mȧ′lō′lā·băN′) comm. dept. Nord, France, pop. 10.
Malolos (mä·lō′lōs) munic. ✻ of Bulacan prov. Luzon, Phil. isls. pop. 26.
Malone (mȧ·lōn′) vil. × of Franklin co. N. Y. pop. 9.
Maloyaroslavets (mä′lō·yȧ·rō·slä′vyĕts) town, SW Moscow area, Soviet Russia, Europe, pop. 5; battle 1812.
Malpeque (mȧl′pĕk′) *form.* **Richmond, Bay,** sea inlet, N Prince Edward Isl. Canada.
Malplaquet (mȧl′plȧ′kĕ′) hamlet, dept. Nord, France; battle 1709.
Malta (môl′tȧ; mŏl′-) *anc.* MEL′ITA, chief isl. Maltese isls. 95 □ pop. 235. — *or* **Maltese Islands,** Malta, Gozo, & Comino, in Medit. sea 58 m. S of Sicily, Br. col. with responsible govt. 122 □ pop. 258, ✻ Valletta. See HOSPITALER, 3, MALTESE, *adj.* & *n.*
Maltby (môlt′bĭ) urban dist. West Riding, Yorkshire, England, pop. 10.
Malvan (mäl′vȧn) town, Ratnagiri dist. Bombay, Br. India, pop. 22.
Malvern (măl′vērn) town, × of Hot Springs co. Ark. pop. 5. — bor. Chester co. Pa. pop. 2. — (*pron.* môl′-; mŏ′-) urban dist. Worcestershire, Eng. pop. 16; springs. — (*pron.* môl′-) town, Victoria, Australia, suburb of Melbourne, pop. 43.
Malverne (măl′vērn) vil. Nassau co. N. Y. pop. 2.
Malvern Hill (măl′vērn) elevated plateau near Richmond, Va.; battle 1862.
Malvern Hills (mô(l)′vērn) Eng. between Worcester & Hereford cos.; highest 1395 ft.
Malwa (mäl′wä) tableland & old kingdom, cen. India, bet. 23° 30′ & 24° 30′ N and 74° 30′ & 78° 10′ E. — agency, W Central India Agency, & states, incl. Jaora, Ratlam, & Dewas (Sr. & Jr.) 2,704 □ pop. 439.
Mamaroneck (mȧ·măr′ō·nĕk) vil. Westchester co. New York, pop. 12.
Mambajao (mäm·bä′hou; 162) munic. Misamis prov. Phil. isls. pop. 21.
Mamberamo (mäm′bä·rä′mō) riv. N Dutch New Guinea, 500 m. N to Cape d'Urville; called Rouffaer above entrance of Idenburg riv.
Mametz (mȧ′mĕs′) vil. dept. Somme, France, 4 m. SSE of Albert; battle 1916.
Mammoth Cave, great cavern, Edmondson co. Ky.; tourist resort. See BLINDFISH, *n.*
Mammoth Hot Springs, admin. hdqrs. of Yellowstone Nat. Park; hot springs in vicinity.
Mamoré (mä′mō·rā′) riv. Bolivia, S. Amer. called Guapay or Grande in upper course, 1,200 m.; with Beni forms the Madeira.
Mam Soul (mȧm sōl) mt. Ross and Cromarty co. Scotland, 3,862 ft. high.
Man, Isle of, *anc.* MONA′PIA *or* MO′NA, isl. Br. Isles, in Irish sea, 221 □ pop. 49, ✻ Douglas. See HOUSE OF KEYS, MANX, *n.*, TYNWALD, *n.*
Manabí (mä′nä·bē′; 98) prov. Ecuador, S. Amer. 7,891 □ pop. 218, ✻ Portoviejo.
Manacor (mä′nä·kôr′) comm. E Majorca, Balearic isls. Spain, pop. 16.
Manage (mȧ′näzh′) comm. Hainaut prov. Belgium, pop. 5.
Managua (mä·nä′gwä) lake, W Nicaragua, Cen. Amer. 38 m. long, 575 □, exit S to Lake Nicaragua. — city on Lake Managua, ✻ of Nicaragua, destroyed by earthquake Mar. 31, 1931; being rebuilt.
Manama (mȧ·nä′mȧ) spt. NE Bahrein isl. ✻ of Bahrein isls. Persian gulf, pop. 25.
Mananjary (mä′nän·zhä′rē) spt. E coast of Madagascar, pop. 11.
Manaoag (mä·nä′wäg) munic. Pangasinan prov. Luzon, Phil. isls. pop. 22.
Manasquan (măn′ȧ·skwŏn) bor. Monmouth co. New Jersey, pop. 2.
Manassas (mȧ·năs′ȧs) town, × of Prince William co. Va. pop. 1; battles of Bull Run (called Manassas by the Confederates) fought near here July 21, 1861, Aug. 29 & 30, 1862.
Manatee (măn′ȧ·tē′) co. S Fla. 823 □ p. 23, × Bradentown. — town, Manatee co. Fla. p. 3.
Manati (mä′nä·tē′) munic. (pop. 25) & town (pop. 7) N cen. Puerto Rico.
Manaus *or* **Manáos** (mä·nä′ōōs) cml. town, ✻ of Amazonas state, Brazil, on Rio Negro, pop. 84.
Manawatu (mä′nä·wä′tōō) riv. 100 m. long, S North Isl. New Zealand, to Cook strait.
Manbhum (män′bōōm′) dist. Chota Nagpur, Br. India, 4,095 □ pop. 1,811, ✻ Purulia.
Mancha, La (lä män′chä) old prov. Spain, now in Ciudad Real.
Manche (mäNsh) dept. NW France, 2,475 □ pop. 433, ✻ Saint-Lô.
Manchester (măn′chĕs′tēr; -chĭs·tēr) mfg. town, Hartford co. Conn. pop. 22. — town, Meriwether & Talbot cos. Ga. pop. 4. — city, × of Delaware co. Iowa, pop. 3. — town, Essex co. Mass. pop. 3. — mfg. city, a × of Hillsboro co. N. H. pop. 77. — vil. Adams co. Ohio, pop. 2. — mfg. city, inland port, & county bor. SE Lancashire, England, on Irwell riv. pop. 766; ship canal 35½ m. long to Eastham, 6 m. SE of Birkenhead. See COTTONOPOLIS, *n.*, MANCHESTER, *n.*, MANCHESTER SCHOOL.
Manchouli (män′jō′lē′) *or* **Manchuli** (män′jōō′lē′) treaty port, W Khingan prov. Manchuria, near frontier, pop. 9.
Manchukuo *or* **Manchoukuo** (män′jō′kwō′; *popularly* -chōō′kwō′) state set up in Manchuria under Japanese influence, incl. old Manchuria provs. of Fengtien, Kirin, & Heilungkiang, prov. of Khingan (formed from W Heilungkiang & W Fengtien), & Jehol prov. of Inner Mongolia, 460,265 □ pop. 34,075, ✻ Changchun (Hsinking).
Manchuria (măn·chōōr′ĭ·ȧ) *Chin.* **Manchow** (män′jō′) the 3 NE provs. of China, Fengtien, Kirin, & Heilungkiang, 401,173 □ pop. 30,866, old ✻ Mukden. See MANCHU, *adj.* & *n.* MANCHUKUO (*Gaz.*).
Mand (mänd) *or* **Mund** (mŭnd) riv. Fars prov. SW Persia, 300 m. to Persian gulf.
Mandalay (măn′dȧ·lā; măn′dȧ·lā) div. E cen. Upper Burma, 12,504 □ pop. 1,696. — dist. of Mandalay div. 2,115 □ pop. 372. — city, ✻ of Mandalay div. & dist. 650 m. up the Irrawaddy riv. pop. 135, incl. cantonment, 148; ✻ of kingdom of Burma, 1858–85.
Mandan (măn′dăn) city, × of Morton co. North Dakota, pop. 5.
Mandaue (män·dä′wā) munic. Cebu prov. Phil. isls. pop. 21.
Mandeure (mäN′dûr′) comm. dept. Doubs, France, pop. 5.
Mandi (mŭn′dē) native state, NE Punjab States, India, 1,139 □ pop. 207. — **Nagar** (nŭg′ȧr) its ✻, pop. 8.
Mandla (mŭnd′lä) dist. Jubbulpore div. N Cen. Provs. Br. Ind. 5,057 □ pop. 446. — its ✻, pop. 8.
Manduria (män·dōō′rē·ä) comm. Taranto prov. Apulia, Italy, pop. 18.
Mandvi (mänd′vē) cml. spt. S Cutch, W. India States, on Gulf of Cutch, pop. 23.
Manfredonia (män′frā·dō′nyä; *E.* măn′frē·dō′nĭ·ȧ) ft. spt. Foggia prov. Apulia, Italy, pop. comm. 19, on **Gulf of Manfredonia,** Adriatic sea.
Mangaia (män·gä′ē·ä) SE isl. of Cook isls. pop. 1; to New Zealand.
Mangaldan (mäng′gäl·dän′) munic. Pangasinan prov. Luzon, Phil. isls. pop. 17.
Mangalore (măng′gȧ·lōr′) spt. ✻ of S. Kanara dist. Madras pres. Br. India, pop. 67.
Mangareva (män′gä·rā′vä) chief isl. Gambier isls. Fr. Oceania, 7 □ pop. 1.
Mangatarem (mäng′gȧ·tä′rĕm) munic. Pangasinan prov. Luzon, Phil. isls. pop. 16.
Mangishlak (män′gĭsh·läk′) *or* **Manqishlaq,** pen. E coast of N Caspian sea in SW Kazak repub. Soviet Russia, Cen. Asia, lat. 44° 30′ N.
Manglün (mŭn′glŭn) chief Wa state, E N. Shan states, Burma, Br. Ind. 3,360 □ pop. 38, ✻ Takūt.
Mangotsfield (măng′gŭts·fēld) urban dist. Gloucestershire co. England, pop. 11.
Mangueira, Lagoa da (lä·gō′ȧ dä män·gā′rȧ) lake, 62 m. long, Rio Grande do Sul, Brazil.
Manguito (män·gē′tō) munic. Matanzas prov. Cuba, pop. 21.
Mangum (măng′gŭm) city, × of Greer co. Oklahoma, pop. 5.
Manhattan (măn·hăt′ăn; -′n) isl. at head of N. Y. bay, N. Y. bet. Hudson & East rivs. 13½ m. long, 2¼ m. wide, 22 □ pop. 1,867, forms N. Y. co. of N. Y. state & Manhattan bor. of N. Y. city. — city, × of Riley co. Kans. pop. 10; State Agric. coll. — bor. part of N. Y. city, coextensive with N. Y. co. and Manhattan isl. pop. 1,867; contains main financial and commercial and important residential sections of the city.
Manhattan Beach, city, Los Angeles co. Calif. pop. 2. — bathing beach & amusement resort, Coney isl. Kings co. N. Y.
Manheim (măn′hīm) borough, Lancaster co. Penn. pop. 4.

Mährisch-Ostrau. See MORAVSKÁ OSTRAVA.
Mährisch-Schönberg See ŠUMPERK.
Mährisch Weisskirchen. See HRANICE.
Malmansingh. Var. of MYMENSINGH.
Maire, Le = LEMAIRE.
Makassar See MACASSAR.
Makdala. See MAGDALA.
Makedonia See MACEDONIA.
Makka. See MECCA.
Makua. See UBANGI.
Makun. See MAKO (town).
Makung. = MAKO (town).
Makurdi. See BENUE.
Malaca. See MÁLAGA.
Malakal. See UPPER NILE.
Malakka. Var. of MALACCA.
Mala Prespa, Lake. See PRESPA, LAKE.
Malaskirt. See MANZIKERT.
Malespina. See CANLAON.
Malaya. See MALAY PENINSULA.
Malaya, British. See BRITISH MALAYA.
Malaysia. See MALAY ARCHIPELAGO.
Malbaie, La. See MURRAY BAY.
Maloventum. See BENEVENTO.
Malhon. See HOMONHON.
Mallacus Sinus. See LAMIA, GULF OF.
Malindang. = GRAN MALINDANO.
Mallicolo. See MALEKULA.
Mallorca. See MAJORCA.
Malmasia. See MONEMBASIA.
Malström. See MAELSTROM.
Malteso Islands. See MALTA.
Malva. See MULUYA.
Malvasia = MONEMBASIA.
Malvinas, Islas. = FALKLAND ISLANDS.
Mamuret el Aziz. = ELÂZIZ.
Manado. See MENADO.
Manahiki. = MANIHIKI.
Manar. = MANNAR.
Mancho, La. See ENGLISH CHANNEL.
Manchoutikuo. = MANCHUKUO.
Manchow. See MANCHURIA.

N O P Q R S T U V W X Y Z

A PRONOUNCING BIOGRAPHICAL DICTIONARY

CONTAINING MORE THAN

THIRTEEN THOUSAND FIVE HUNDRED NAMES OF NOTEWORTHY PERSONS

THEIR NATIONALITY, THEIR STATION, THEIR PROFESSION OR OCCUPATION, AND THE DATES OF THEIR BIRTH AND DEATH

THE design of this work of biographical reference is to furnish short answers to the questions most frequently asked concerning any one of the distinguished or notable persons herein mentioned; namely: What is the correct spelling and pronunciation of his name? What was he? What was his nationality? When did he live?

Where two or more members of a family are mentioned, the relationship is stated in italics immediately after the given name (as *Son, Father*, etc., as the case may be). An assumed name, a sobriquet, or an original name not so well known, is generally printed in italics. The italic words in brackets indicate something noteworthy with which the person has had to do, as a book, a painting, an invention, a discovery, a doctrine, or the like. In many instances what is thus enclosed serves to identify the person clearly.

Names containing connectives like *d', de, di, van, von*, etc., are alphabetized usually under the part of the name following the connective; exceptions are chiefly names of Americans or Britishers.

Arabic names: In the entry forms, such names are partly Anglicized, that is, diacritical marks are not used. In alphabetizing, the article *al-* (*the*) is disregarded, but the prefixes *abu-* (*father*) and *ibn-* (*son*) are regarded as parts of the names: thus, *Hakam, al-* (not *al-Hakam*); but *abu-Abdallah, ibn-Saud.* Titles (as *mirza, effendi*, etc.) preceding Arabic, Turkish, etc., proper names are not recognized in alphabetizing.

Dates: The letters B.C. precede all dates before the Christian Era. A question mark indicates an approximate or doubtful date. Abbreviations: *ab. = about; aft. = after; b. = born; c. = century* or *centuries; d. = died; dep. = deposed; fl. = flourished* or *lived.*

Pronunciation: Where two or more persons having the same name are mentioned, the pronunciation is given with the name of the first individual only, if it is the same for each. The figures sometimes given with the respelling for pronunciation refer to sections in the Guide to Pronunciation. For special treatment of various sounds in foreign languages, see pp. 3015–3017.

A

Born Died

Aagesen (ô′gĕ·sĕn), Svend. Earliest Danish historian .... 1130– ?
Aahmes (ä′mēs). See AMASIS.
Aarestrup (ô′rĕ·strŏŏp), Carl Ludvig Emil. Danish poet 1800–1856
Aasen (ô′sĕn), Ivar Andreas. Norwegian philologist 1813–1896
Abad (ä·bäd′) **I.** *Abbad ibn-Mohammed abu-Amr.* First Moorish king of Seville, and founder of the Abbadide dynasty .... ? –1042
Abancourt, d' (dȧ′bäɴ′kōōr′), Charles Xavier Joseph Franqueville. Minister of war of Louis XVI of France 1758–1792
Abano, d' (dä·bä′nō), Pietro. Italian astrologer and physician 1250–1316
Abauzit (ȧ′bō′zēt′), Firmin. French philosopher and writer 1679–1767
Abbad (äb·bäd′). Var. of ABAD.
Abbadie, d' (dȧ′bȧ′dē′), Antoine Thomson. French voyager 1810–1897
Abbadie, d', Arnaud Michel. *Brother of preceding.* French voyager 1815–1893
Abbas (äb′bäs′; ăb′ăs) **I.** *The Great.* Shah (king) of Persia (1586–1628) 1557–1628
Abbas Mirza (mĭr′zä). Persian prince and military leader .... 1785?–1833
Abbassides (ȧ·băs′īdz; ăb′ȧ·sīdz). See ABBASSIDE, in *Vocab.*
Abbate, dell' (dĕl′-läb·bä′tä), Niccolo. Italian fresco painter 1512–1571
Abbe (ăb′ē), Cleveland. American meteorologist 1838–1916
Abbey (ăb′ĭ), Edwin Austin. American artist 1852–1911
Abbon of Fleury (ȧ′bôɴ′). Abbot of Fleury. French monk and savant 945–1004
Abbott (ăb′ŭt), Benjamin Vaughan. *Son of Jacob.* American law writer 1830–1890
Abbott, Charles Conrad. American naturalist 1843–1919
Abbott, Edwin Abbott. English theologian and author 1838–1926
Abbott, Evelyn. English classical scholar 1843–1901
Abbott, Jacob. American author and clergyman. [*Rollo Books*] 1803–1879
Abbott, Lyman. *Son of Jacob.* American clergyman, author, and editor 1835–1922
Abd (ăbd) (Arabic, *servant*), an initial word in Semitic proper names.
Abd-al-Aziz, Abd-el-Aziz. Vars. of ABDUL-AZIZ.
Abdallah ibn-Yasin (ăb′däl·lä′ĭh′n·yȧ·sēn′). *Fakih.* Founder of the empire of the Almoravides .... ? –1058
Abd-al-Rahman, Abd-ar-Rahman (ăb′-däl·rä·män′, ăb′-där-). Vars. of ABD-ER-RAHMAN.
Abd-el-Kader (ăb′-dĕl·kä′dẽr), **Abd-al-Kadir** (ăb′-däl-), *or* **Abdul-Kadir** (ăb′-dōōl·kä′dĭr). Emir of Mascara 1807–1883
Abd-er-Rahman (ăb′-dẽr·rä·män′). Arab invader of France .... ? – 732
Abd-er-Rahman I. Emir of Córdoba (756–788). See OMMIAD, in *Vocab.* 731– 788
Abd-er-Rahman Khan (ăb′-dẽr·rä·män′ kän). Amir of Afghanistan 1830–1901
Abdul-Aziz (ăb′dōōl·ä·zēz′). Sultan of Turkey (1861–76) 1830–1876
Abdul-Aziz, *or* **Abd-el-Aziz** (ăb′-dĕl-). Sultan of Morocco (1894–dep. 1908) .... 1878? ——
Abdul-Aziz ibn-Saud (ĭh′n·sȧ·ōōd′). See IBN-SAUD.
Abdul Baha (-bȧ·hä′). Real name *Abbas Effendi. Son of Bahaullah.* Persian Bahai .... ? –1921
Abdul-Hamid (ăb′dōōl·hȧ·mēd′) **II.** Sultan of Turkey (1876–dep. 1909) 1842–1918
Abdul-Kadir (ăb′dōōl·kä′dĭr). See ABD-EL-KADER.
Abdullah (ăb′dōōl·lä′). Var. of ABDALLAH.
Abdul-Medjid *or* **-Mejid** (ăb′dōōl·mĕ·jēd′). Sultan of Turkey (1839–61) 1823–1861
À Becket, Thomas. See BECKET, Thomas à.
À Beckett (ȧ bĕk′ĕt; -ĭt), Gilbert Abbot. English comic writer 1811–1856
Abel (ä′bĕl), Carl. German philologist 1837–1906
Abel (ā′bĕl), Frederick Augustus, Sir. English chemist 1827–1902
Abel, John Jacob. American physiologist and pharmacologist .... 1857 ——
Abel (ä′bĕl), Niels Henrik. Norwegian mathematician 1802–1829
Abélard, *or* **Abailard** (ăb′ĕ·lärd; *F.* ȧ′bȧ′lär′), Pierre. French scholastic philosopher and logician 1079–1142
Abencerrages (ȧ·bĕn′sĕ·rā′jĕz; *Sp.* ä·bĕn′thär·rä′häs). See in *Vocab.*
Aben-Ezra (ä′bĕn′ĕz′rȧ), Abraham. *The Wise.* Jewish commentator .... 1092?–1167
Abercrombie (ăb′ẽr·krŭm′bĭ), James. British general in America 1706–1781
Abercrombie (ăb′ẽr·krŭm′bĭ), Lascelles. Eng. poet, critic, and dramatist .... 1881 ——
Abercromby (-bĭ), Ralph, Sir. English general 1734–1801
Aberdeen (ăb′ẽr·dēn′), George Hamilton Gordon, fourth Earl of. British statesman. Prime Minister (1852–55) 1784–1860
Aberdeen and Temair (ăb′ẽr·dēn′, tē·mâr′), John Campbell Gordon, first Marquis of. *Grandson of preceding.* British statesman 1847–1934
Abernethy (ăb′ẽr·nē′thĭ), John. English surgeon 1764–1831
Abich (ä′bĭĸ), Wilhelm Hermann. German geologist and traveler 1806–1886
Abington (ăb′ĭng·tŭn; -t′n), Frances, Mrs. *Fanny Barton.* English actress 1737–1815
Abney (ăb′nĭ), William de Wiveleslie, Sir. Eng. physicist 1843–1920
aboo *or* **abou** (ä·bōō′) (Arabic, *father*). For names beginning thus, see ABU.
About (ȧ′bōō′), Edmond François Valentin. French writer 1828–1885
Abrabanel (ä·brä′bä·nĕl′), Isaac. Portuguese Jewish author 1437–1508
Abrantès, d' (dȧ′bräɴ′tĕs′), Andoche Junot, Duc. See JUNOT.
Abruzzi (ä·brōōt′sē), Duke of the. *Prince Luigi Amedeo Giuseppe Maria Ferdinando Francesco.* Italian naval officer and explorer 1873–1933

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Absalon (äb′sȧ·lŏn), *or* **Axel** (äk′sĕl). Danish statesman and archbishop 1128–1201
Abt (äpt), Franz. German musical composer 1819–1885
abu-Abdallah (ä·bōō′ăb′däl·lä′). See BOABDIL.
abu-Abdallah Mohammed (mō·hăm′ĕd). See IBN-BATUTA.
abu-Bekr (-bĕk′′r). Also **Abou-Bekr,** *or* **Abubekr.** First caliph of Mecca. Successor of Mohammed 573– 634
abu-Hayyan (ä·bōō′hĭ·yän′). *Athir-ed-Din.* Arabian author 1256–1344
abu-Jafar Abdallah. See 2d MANSUR.
abu-l-Abbas-Abdallah (ä·bōōl′äb·bäs′-ăb′däl·lä′). *as-Seffah.* First caliph of the Abbassides .... 720?– 754
Abulfaraj (ä·bōōl′fä·räj′), *or* **Abulfaragius** (ăb′ŭl·fȧ·rā′jĭ·ŭs), Mar Gregorius. *Bar-Hebraeus.* Armenian bishop and historian 1226–1286
Abulfazl, *or* **Aboulfazl** (ä·bōōl′fä′z′l; ŭb′ōōl·fŭz′l). Vizier of the emperor Akbar and historian .... ? –1602
Abulfeda, *or* **Aboulfeda** (-fē·dä′), Ismail-ibn-Ali. Arabian warrior and author .... 1273?–1331
Abul Kasim (ä·bōōl′ kä·sēm′; kä′sĕm). *Lat.* **Albucasis** (ăl′bū·kā′sĭs). Arabian surgical writer of Córdoba. [*al-Tasriff.*] .... ? –1110?
Abul Kasim Mansur (män·sōōr′). See FIRDAUSI.
Achard (äĸ′ärt), Franz Karl. Ger. chemist, pioneer in beet-sugar industry 1753–1821
Achard (ȧ′shär′), Louis Amédée Eugène. French journalist 1814–1874
Ache, d' (dȧsh), Caran. Pseudonym of EMMANUEL POIRÉ.
Achenbach (äĸ′ĕn·bäĸ), Andreas. German landscape and marine painter 1815–1910
Achenbach, Oswald. *Bro. of Andreas.* German landscape painter 1827–1905
Acheson (ăch′ĕ·sŭn; -s′n), Edward Goodrich. Am. inventor. [*Carborundum*] .... 1856 ——
Achmet (äĸ′mĕt). See AHMED.
Acosta, de (dā ä·kōs′tä), José. Spanish missionary and author .... 1539?–1600
Acqua, dell' (dĕl·läk′kwä), Cesare. Italian painter 1821–1905
Acrelius (ȧ·krē′lĭ·ŭs; *Sw.* ä·krā′lĭ·ōōs), Israel. Historian of Swedish colonies in America 1714–1800
Acuña, de (dā ä·kōōn′yä), Cristóbal. Spanish Jesuit and missionary 1597–1676
Adam (ȧ′däɴ′), Adolphe Charles. French light opera composer 1803–1856
Adam (ȧ′däɴ′), Edmond, Mme. *Juliette Lamber.* French writer .... 1836 ——
Adam (ăd′ăm), Robert. Eng. architect, most celebrated of the Adam brothers (John, Robert, James, William). See ADAM, *adj.*, in *Vocab.* 1728–1792
Adams (ăd′ămz), Abigail. American writer, wife of Pres. John Adams 1744–1818
Adams, Charles Francis. *Son of J. Q.* American lawyer and diplomat 1807–1886
Adams, Charles Francis. *Son of preceding.* Am. lawyer and hist. writer 1835–1915
Adams, Charles Kendall. Am. educator and author. Pres. Univ. of Wis. 1835–1902
Adams, Franklin Pierce. *F. P. A.* Am. journalist and humorist .... 1881 ——
Adams, George Burton. Am. historian and educator 1851–1925
Adams, Henry Brooks. Am. hist. writer. [*Education of Henry Adams*] 1838–1918
Adams, Herbert. Am. sculptor .... 1858 ——
Adams, James Truslow (trŭs′lō). Am. hist. & essayist. [*Pulitzer prize, 1922*] .... 1878 ——
Adams, John. Lawyer, and second president of U. S. A. (1797–1801) 1735–1826
Adams, John Couch. English astronomer 1819–1892
Adams, John Quincy. *Son of John.* Sixth president of U. S. A. (1825–29) 1767–1848
Adams, Maude, Miss. Real name *Maude Kiskadden.* American actress .... 1872 ——
Adams, Samuel. American Revolutionary patriot and statesman 1722–1803
Adams, Samuel Hopkins. Am. journalist and novelist. [*Revelry*] .... 1871 ——
Adams, Sarah Flower. Eng. poet. [*Nearer My God to Thee*] 1805–1848
Adams, William Taylor. *Oliver Optic.* American story writer 1822–1897
Adanson (ȧ′däɴ′sôɴ′), Michel. French naturalist 1727–1806
Addams (ăd′ămz), Jane. Am. social worker. [*Nobel peace prize, 1931*] .... 1860 ——
Addington (ăd′ĭng·tŭn; -t′n), Henry, first Viscount Sidmouth. Eng. statesman. Prime Minister (1801–04) 1757–1844
Addison (ăd′ĭ·sŭn; -s′n), Joseph. English poet and essayist. [*Spectator*] 1672–1719
Ade (ād), George. American humorist and playwright .... 1866 ——
Adelaide (ăd′ĕ·lād). Queen of England. Consort of William IV 1792–1849
Adelbert (ăd′ĕl·bẽrt), *or* **Adalbert** (ăd′ăl-), Saint. Apostle of the Prussians. Bishop of Prague, and martyr 955– 997
Adelung (ä′dĕ·lōōng), Johann Christoph. German philologist 1732–1806
Adet (ȧ′dĕ′), Pierre Auguste. French envoy and chemist 1763–1832
Adler (äd′lẽr), Alfred. Austrian psychologist and psychiatrist .... 1870 ——
Adler (ăd′lẽr), Cyrus. American Jewish archaeologist and author .... 1863 ——
Adler, Felix. Ethical reformer. [*N. Y. Society for Ethical Culture*] 1851–1933
Adler, Georg J. Amer. prof. and author of German and English Dict. 1821–1868
Adler, Hermann. English Jewish author and chief rabbi 1839–1911
Adlerbeth (äd′lẽr·bĕt), Gudmund Göran. Swedish poet 1751–1818
Adolphus of Nassau (ȧ·dŏl′fŭs). German emperor (1292–98) 1252–1298
Adrets, des (dā′-zȧ′drĕ′), François de Beaumont, Baron. Huguenot leader .... 1512?–1585
Adrian (ā′drĭ·ăn). Emperor of Rome. See HADRIAN.
Adrian I. Pope (772–795) .... ? – 795
Adrian IV. Nicholas Breakspeare. Pope (1154–59). [*English Pope*] .... 1100?–1159
Adrian VI. Pope (1522–23) 1459–1523
Adrian, Edgar Douglas. Eng. physiologist. [*Nobel prize in medicine, 1932*] .... 1889 ——

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Adriani (ä′drē·ä′nē), Giovanni Battista. Italian historian........1513–1579
Aduarte (ä·dwär′tā), Diego. Spanish historian........1570?–1637
Æ. Pseudonym of GEORGE WILLIAM RUSSELL.
Ædilberct (ăd′ĭl·bĕrkt). See ETHELBERT.
Aegidi (ā·gē′dē), Ludwig Karl. German statesman and jurist........1825–1901
Aehrenthal, von (fōn â′rĕn·täl), Aloys, Count Lexa. Austro-Hungarian statesman........1854–1912
Aeken, van (văn ä′kĕn), Hieronymus. See BOSCH.
Ælfred. Var. of ALFRED (the Great).
Ælfric (ăl′frĭk). *Grammaticus.* Anglo-Saxon abbot and writer........955?–1020?
Aelian (ē′lĭ·ăn). *Claudius Aelianus.* Roman author and rhetorician ..... fl. 3d c.
Aelius Donatus (ē′lĭ·ŭs dō·nā′tŭs). See DONATUS.
Aemilius (ē·mĭl′ĭ·ŭs). See EMILIO, PAOLO.
Aepinus (ē·pī′nŭs; *Ger.* â·pē′nōōs), Franz Maria Ulrich Theodor Hoch. German electrician........1724–1802
Aertszen (ärt′sĕn), Pieter. *Pietro-Longo.* Dutch painter........1520?–1573?
Aeschines (ĕs′kĭ·nēz *or, esp. Brit.,* ēs′-). Athenian orator........B.C. 389– 314
Aeschylus (ĕs′kĭ·lŭs *or, esp. Brit.,* ēs′-). Greek tragic poet........B.C. 525– 456
Aesop (ē′sŏp). Greek fabulist........fl. B.C. 560
Aesopus (ē·sō′pŭs), Clodius. Roman tragedian........fl. B.C. 1st c.
Æthelbald, Æthelberht, Æthelred, Æthelwulf. Vars. of ETHELBALD, etc.
Æthelstan. Var. of ATHELSTAN.
Aëtius (ā·ē′shĭ·ŭs). Roman general........396?– 454
Aëtius of Antioch. See AËTIAN, in *Vocab.*
Africanus (ăf′rĭ·kā′nŭs), Scipio. See SCIPIO AFRICANUS.
Africanus, Sextus Julius. Christian historian........? – 232
Afzelius (ăf·zē′lĭ·ŭs; *Sw. pron.* äv·sā′lĭ·ōōs), Adam. Swedish botanist........1750–1837
Afzelius, Arvid August. Swedish poet and collector of folk songs........1785–1871
Aga Khan (ä′gä kän′) **III.** *Sultan Sir Mohammed Shah.* Head of Ismaelian Mohammedans from 1885........1875 ——
Agardh (ä′gärd), Karl Adolf. Swedish botanist and author........1785–1859
Agasias of Ephesus (ȧ·gā′shĭ·ȧs). See BORGHESE GLADIATOR, in *Vocab.*
Agassiz (ăg′ȧ·sē), Alexander. *Son of L. J. R.* Naturalist in America........1835–1910
Agassiz, Louis John Rudolph. Swiss naturalist and teacher in America........1807–1873
Agathocles (ȧ·găth′ō·klēz). Tyrant of Syracuse........B.C. 361?– 289
Ageladas (ăj′ē·lā′dȧs). Greek sculptor........fl. B.C. 5th c.
Agesander (ăj′ē·săn′dēr). Greek (Rhodian) sculptor........fl. B.C. 1st c.
Agesilaus (ȧ·jĕs′ĭ·lā′ŭs) **II.** King of Sparta (B.C. 401?–360)........B.C. 444?– 360
Agnello (än·yĕl′lō), Andrea. Abbot and historian of Ravenna........fl. 9th c.
Agnesi (än·yā′zē), Maria Gaetana. Italian mathematician........1718–1799
Agnolo, d' (dän′yō·lō), Baccio. Florentine engineer and architect........1460–1543
Agoracritus (ăg′ō·răk′rĭ·tŭs) *or* **Agorakritos** (-tŏs). Greek sculptor ......fl. B.C. 5th c.
Agoult, d' (dȧ′gōō′), Marie Catherine Sophie de Flavigny, Countess. *Daniel Stern.* French authoress. *Mother of Cosima Wagner*........1805–1876
Agramonte (ä′grä·mōn′tā), Ignacio. Cuban revolutionist........1841–1873
Agresti (ä·grĕs′tē), Alberto. Italian author........1844 ——
Agricola (ȧ·grĭk′ō·lȧ), Georg. Real name *Bauer.* German mineralogist. [*De Re Metallica*]........1494–1555
Agricola (ȧ·grĭk′ō·lȧ), Gnaeus Julius. Roman general........37– 93
Agricola, Rudolfus. *Roelof Huysman.* Dutch scholar........1443–1485
Agrippa (ȧ·grĭp′ȧ), Heinrich Cornelius. Ger. physician, theologian, writer ..1486?–1535
Agrippa, Marcus Vipsanius. Roman statesman........B.C. 63– 12
Agrippina (ăg′rĭ·pī′nȧ) **II.** Mother of the emperor Nero........15?– 60
Aguilar (ä′gē·lär′), Grace. English Jewish authoress........1816–1847
Aguilera (ä′gē·lā′rä), Ventura Ruiz. Spanish poet........1820–1881
Aguinaldo (ä′gē·näl′dō), Emilio. Filipino leader........ab. 1870 ——
Ahlefeld, von (fōn ä′lĕ·fĕlt), Frau. Charlotte Elisabeth Sophie Luise Wilhelmine von Seebach. German novelist........1781–1849
Ahlquist (äl′kvĭst), August Engelbert. Finnish philologist........1826–1889
Ahlwardt (äl′värt), Wilhelm. German orientalist........1828–1909
Ahmed (ä′mĕd), *or* **Achmet** (äk′mĕt), **III.** Ottoman emperor (1703–1730)...1673–1736
Ahmed. *Son of Mohammed Ali.* Shah of Persia (1909–25)........1898–1930
Ahmed Vefik Pasha (vĕf′ĭk pȧ·shä′). Turk. statesman and scholar........1819?–1891?
Ahrens (ä′rĕns), Heinrich. German jurist and author........1808–1874
Aicard (ā′kár′), Jean François Victor. French poet, novelist, and dramatist..1848–1921
Aidan (ā′dăn), Saint. Irish abbot of Lindisfarne........d. 651
Aidé (ā′ē′dā′), Charles Hamilton. English poet and novelist........1826–1906
Aignan (ĕn′yän′), Étienne. French republican and writer........1773–1824
Aiguebère (ĕg′bâr′), Jean Dumas. French dramatist........1692–1755
Aiguillon, d' (dā′gwē′yôn′), Armand Vignerot Duplessis Richelieu, Duc. Prime minister of France........1720–1782
Aiken (ā′kĕn; -kĭn), Conrad. American poet. [*Pulitzer prize, 1930*]........1889 ——
Aimard (ĕ′mär′), Gustave. French novelist........1818–1883
Aimmiller (īn′mĭl·ēr), Maximilian Emanuel. German painter........1807–1870
Ainsworth (ānz′wûrth), Robert. English author of Latin dictionary........1660–1743
Ainsworth, Wm. Harrison. Eng. novelist. [*Old St. Paul's, Tower of London*]..1805–1882
Airy (âr′ĭ), George Biddell, Sir. English astronomer........1801–1892
Aisha (ä′ē·shä). Favorite wife of Mohammed........611– 678
Aitken (āt′kĕn; -kĭn), Robert Grant. American astronomer........1864 ——
Aitken, Robert Ingersoll. American sculptor........1878 ——
Aiton (ā′tŭn; -t'n), William. Scottish botanist........1731–1793
Akahito (ä′kä·hē′tō). Japanese poet........fl. 8th c.
Akbar (ăk′bär; *Hindu pron.* ŭk′bär; *sometimes, but erroneously, accented on the last syllable*). Emperor of Hindustan (1556–1605)........1542–1605
Akeley (āk′lĭ), Carl Ethan. Am. naturalist, explorer, and sculptor........1864–1926
À Kempis, Thomas. See THOMAS À KEMPIS.
Akenside (ā′kĕn·sīd), Mark. English poet........1721–1770
Akers (ā′kērz), Benjamin Paul. American sculptor........1825–1861
Akhenaten, Akhenaton (ä′kĕ·nä′t'n). The name adopted by AMENOPHIS IV.
Akiba ben Joseph (ä·kē′bä bĕn jō′zĕf). Jewish rabbi and martyr .... 50–132?
Aksakov (äk·sä′kôf), Sergei. Russian novelist........1791–1859
al-. For names beginning *al-*, see the second element.
Alacoque (ȧ′lȧ′kôk′), Marguerite Marie. French nun and visionary........1647–1690
Aladdin (ȧ·lăd′ĭn). (*Arab.* **Ala-ed-Din,** ȧ·lä′ĕd·dēn′). Son of Osman I. Organizer of the Janizaries .... fl. 1370
Alain de Lille (ȧ′lăN′ dē lēl′). *The Universal Doctor.* French theologian..1114–1203?
Alamanni (ä′lä·män′nē), *or* **Alemanni** (ä′lä·män′nē), Luigi. Italian poet ...1495–1556
Alamgir (äl′ăm·gēr) **I.** See AURANGZEB.
Alanus de Insulis (ȧ·lā′nŭs dē ĭn′sū·lĭs). = ALAIN DE LILLE.
Alarcón, de (dā ä′lär·kōn′), Hernando. Sp. explorer of Californian coast.... fl. 1540
Alarcón, de, Pedro Antonio. Spanish author........1833–1891
Alarcón y Mendoza, de (dā ä′lär·kōn′ ē mĕn·dō′sä; 267), Juan Ruiz. Spanish Mexican poet ....1588?–1639
Alaric (ăl′ȧ·rĭk). (*Lat.* **Alari′cus**) Conq. of Rome. King of the Visigoths.376?– 410
Alasco, *or* **à Lasco** (ȧ·läs′kō), John. *Jan Laski.* Polish Prot. reformer 1499–1560
Alava, de (dā ä′lä·vä), Miguel Ricardo. Spanish general and statesman........1771–1843
Alba (äl′bä; ăl′bȧ; 98). See ALVA.
Alban, Saint (sānt ôl′băn; ăl′-). First Christian martyr of Great Britain....d. 303 or 304
Albani (äl·bä′nē), *or* **Albano** (äl·bä′nō), Francesco. Italian painter........1578–1660
Albani, Mme. *Mme. Ernest Gye.* Marie Louise Emma Cécile, born Lajeunesse. Canadian operatic soprano........1852–1930
Albans, Saint (sānt ôl′bănz), John of. English physician, theologian, and philosopher........ ? –1253
Albategnius. See BATTANI, AL-.
Albemarle (ăl′bē·märl), Arnold van Keppel, Earl of. Dutch courtier........1669–1718
Albemarle, George Monck, Duke of. See MONCK, George.
Albeniz (äl·bā′nēth′), Isaac. Spanish pianist and composer........1860–1909
Albers (äl′bērs), Johann Friedrich Hermann. German physician........1805–1867
Albert (ăl′bērt). Archduke of Austria, and governor of the Netherlands........1559–1621
Albert. First duke of Prussia........1490–1568
Albert (äl′bĕrt). *The Bold.* Duke of Saxony........1443–1500
Albert (ăl′bērt) **I.** King of the Belgians (1909–34)........1875–1934
Albert (äl′bĕrt) **I.** *The Bear.* Margrave of Brandenburg. Founder of the house of Brandenburg........1106?–1170
Albert III. *The Achilles* and *The Ulysses.* Margrave of Brandenburg........1414–1486
Albert (ăl′bērt), Francis Charles Augustus Emmanuel, Prince of Saxe-Coburg-Gotha. Consort of Queen Victoria (of England)........1819–1861
Albert (äl′bĕrt), Joseph. German photographer. [*Albertype*]........1825–1886
Albert, d' (dăl′bâr′), Charles, Duc de Luynes. Constable of France........1578–1621
Albert, d', Eugen. Scottish pianist and composer........1864–1932
Alberti (äl·bâr′tē), Jean. Dutch theologian and scholar........1698–1762
Alberti (äl·bâr′tē), Leon Battista. Italian architect, and writer on art........1404–1472
Alberti, Salomon. German physician and anatomist........1540–1600
Albertinelli (äl·bâr′tē·nĕl′lē), Mariotto. Italian painter........1474–1515
Alber′tus Mag′nus, Saint. *Albert von Bollstädt.* Bav. philos. and schoolman.1193?–1280
Albini (äl·bē′nē), Franz Joseph. German diplomatist........1748–1816
Albinus (äl·bē′nōōs), Bernhard Siegfried. German anat. and physician........1697?–1770
Albitte (äl′bēt′), Antoine Louis. French Jacobin........? –1812
Albizzi (äl·bēt′sē), Bartolommeo. Tuscan writer........? –1401
Alboin (ăl′boin). King of the Lombards (561–73)........? – 573
Alboni (äl·bō′nē), Marietta. *Countess Pepoli.* Italian contralto........1823–1894
Albrecht (äl′brĕkt), Friedrich Rudolph. Austrian archduke and general........1817–1895
Albrecht, Wilhelm. German agriculturist........1786–1848
Albret, d' (dăl′brĕ′), Jeanne. Queen of Navarre (1555–72)........1528–1572
Albrici (äl·brē′chē), Vincenzo. Italian composer and organist........fl. 1670
Albright (ôl′brīt), Jacob. Am. clergyman. [*Evangelical Association*]........1759–1808
Albrizzi (äl·brēt′sē), Isabella Teotochi, Countess of. Italian authoress........1770–1836
Albucasis (ăl′bū·kā′sĭs). See ABUL KASIM.
Albumazar (äl′bōō·mä′zēr). Arabian astronomer........805?– 885
Albuquerque, de (dē ăl′bū·kûrk), Alfonso. (*Portuguese* **Affonso de Albuquerque,** (ȧ·fōn′sōō dĕ äl′bōō·kĕr′kĕ). Portuguese conqueror in India........1453–1515
Alcaeus (ăl·sē′ŭs). Greek lyric poet........B.C. 620– 580
Alcamenes (ăl·kăm′ē·nēz). Greek sculptor........fl. B.C. 440?
Alcibiades (ăl′sĭ·bī′ȧ·dēz). Athenian politician and general........B.C. 450– 404
Alcman (ălk′măn). Lyric poet of Sparta........fl. B.C. 670?
Alcofribas Nasier (ăl′kō′frē′bä′ nȧ′syā′). Anagram and pseudonym of FRANÇOIS RABELAIS.
Alcott (ôl′kŭt), Amos Bronson. American teacher and philosopher........1799–1888
Alcott, Louisa May. *Dau. of A. B.* Am. author. [*Little Women*]........1833–1888
Alcuin (ăl′kwĭn). *AS.* **Ealhwine.** (*Lat.* **Alcui′nus,** *Flaccus Albinus.*) English theologian........735– 804
Alda (äl′dȧ), Frances. *Orig. Davis.* Am. operatic soprano, born in N. Z.....1883 ——
Aldegrever (äl′dĕ·grā′vēr), *or* **Aldegraef** (äl′dĕ·grēf), Heinrich. German painter and engraver........1502–1562
Alden (ôl′dĕn; -dĕn; -dĭn), John. One of the Pilgrims who settled Plymouth, Mass.1599–1687
Alderete, de (dā äl′dā·rā′tā), Bernardo José. Spanish linguist and author....1560?–1616
Aldhelm (ăld′hĕlm). Anglo-Saxon author. Bishop of Sherborne........640?– 709
Aldington (ôl′dĭng·tŭn; -t'n), Richard. English poet, novelist, and critic....1892 ——
Aldini (äl·dē′nē), Giovanni. Italian natural philosopher........1762–1834
Aldobrandini (äl′dō·brän·dē′nē), Silvestro. Italian jurist........1499–1558
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Alexander I, Obrenović. *Son of Milan I.* King of Serbia (1889–1903)........1876–1903
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Alibrandi (ä′lē·brän′dē), Girolamo. Sicilian painter........1470–1524
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Ali Pasha (ä′lē pȧ·shä′). *The Lion of Janina (Yannina).* Pasha of Yannina.1741–1822
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Allacci (äl·lä′chē), *or* **Allatius** (ă·lā′shĭ·ŭs), Leone. Librarian of Vatican....1586–1669
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Cockerell (kŏk′ẽr·ĕl), Charles Robert. English architect....1788–1863
Cocteau (kôk′tō′), Jean. Frencb poet, novelist, dramatist, and artist....1891 ——
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Cole, Timothy. English-American wood engraver....1852–1931
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Collins, Joseph. American neurologist and author....1866 ——
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Columel′la, Lucius Junius Moderatus. Roman agricultural writer.... fl. 1st c.
Colvin (kōl′vĭn), Sidney, Sir. English man of letters....1845–1927
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Combe, William. Englisb miscellaneous and verse writer. [*Doctor Syntax*]..1741–1823
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Compton, Karl Taylor. *Bro. of A. H.* Am. physicist. Pres. Mass. Inst. of Tech. (1930–)....1887 ——
Comstock (kŭm′stŏk), Ada Louise. Pres. Radcliffe College (1923–)....1876 ——
Comstock, Anthony. American reformer. [*Comstockery*]....1844–1915
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Comte (kôɴt), Isidore Auguste Marie François Xavier. French philosopher. [*Positivism*]....1798–1857
Conant (kō′nănt), Charles Arthur. Amer. economist and author....1861–1915
Conant, James Bryant. Am. chemist. Pres. Harvard Univ. (1933–)....1893 ——
Conant, Thomas Jefferson. American Biblical scholar....1802–1891
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Condé, de (dē kôɴ′dā′), Henri I de Bourbon, Prince. Fr. Prot. leader....1552–1588
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Connor (kŏn′ẽr), Ralph. Pseudonym of Charles William Gordon.
Conrad, *or* **Konrad** (kŏn′răd; *G. pron.* kōn′rät), **I.** Duke of Franconia, and king of tbe Germans (911–918).... ? – 918
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Conrad (kōn′rät), Johannes. German political economist....1839–1915
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Consalvi (kōn·säl′vē), Ercole, Cardinal. Roman statesman....1757–1824
Conscience (kôɴ′syäɴs′), Hendrik. Flemish novelist....1812–1883
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Conway, de, Thomas, Count. Irish soldier in the French army and in the American Revolutionary army. [*Conway cabal*]....1733–1800?
Conwell (kŏn′wĕl), Russell Herman. Amer. clergyman. Pres. Temple Univ. (1888–1925). [*Acres of Diamonds*]....1843–1925
Conybeare (kŭn′ĭ·bâr; kŏn′-). William Daniel. Dean of Llandaff. Eng. geol..1787–1857
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Cook (kŏŏk), Albert Stanburrough. American educator and philologist....1853–1927
Cook, James, Captain. English navigator....1728–1779
Cook, Joseph, Sir. Australian statesman, born in Eng. Prime minister (1913–14). High commissioner in London (1921–27)....1860 ——
Cook, Thomas. English tourist agent. [*Cook's tours*]....1808–1892
Cooke (kŏŏk), John Esten. American novelist....1830–1886
Cooke, Josiah Parsons. American chemist and educator....1827–1894
Cooke, William Fothergill. Eng. physicist. [*Telegraphy*]....1806–1879
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Coolidge (kōōl′ĭj), Archibald Cary. American historian....1866–1928
Coolidge, Calvin. Amer. lawyer. Gov. of Mass. (1918–21). Vice pres. of the U. S. (1921–23). Thirtieth president of the U. S. (1923–29)....1872–1933
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Coolidge, William David. American physicist. [*Coolidge tube*]....1873 ——
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Cooper, James Fenimore. Amer. novelist. [*Leatherstocking Tales*]....1789–1851
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Cooper, Thomas Sidney. English animal painter....1803–1902
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Copland (kōp′lănd), James. Eng. physician. [*Dict. of Practical Medicine*]..1791–1870
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Coppée (kô′pā′), François Édouard Joachim. Fr. poet, dramatist, and novelist.1842–1908
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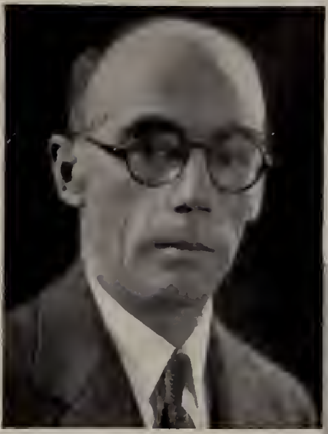

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A REFERENCE HISTORY OF THE WORLD

FROM THE EARLIEST TIMES TO THE PRESENT

PART ONE: WORLD HISTORY
PART TWO: NATIONAL HISTORIES

MAPS, TABLES, PHOTOGRAVURES, AND AN EXHAUSTIVE INDEX

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PREFACE

The History of the World was first included as a special feature in the Reference History Edition of Webster's New International Dictionary, published in 1909. The original outline was prepared by Horace E. Scudder and John Clark Ridpath, assisted by other distinguished scholars. This outline was subsequently revised and enlarged by Edward A. Grosvenor of Amherst College. For the edition of 1921 the general editor was Albert Bushnell Hart who, in this revision of 1934, now returns to the task of bringing into proper focus, with the best of expert aid, the eventful period since the breaking out of the World War in 1914.

Effect of the World War

The World War and the events following it presented a new series of data which required special attention for the preparation of the revised edition of 1934. This meant not only a careful selection of the events to be included in the plan but also a change of emphasis. For that War, with its consequent readjustments, resulted not only in new states but in new political and social ideas. Hence in this edition are recorded in much detail the tremendous events of that world struggle, involving as it did incidents of great significance in the development of the world, and also a new valuation of the previous events which slowly but inevitably led up to the great crisis of the War.

Postwar Period

The decade and a half since the end of active hostilities and the rapid shaping of the results rising from the Treaty of Versailles have made necessary a careful and detailed study of that period, — one which has been almost as significant and changeful as the previous five years of hostilities. The most significant enlargement of the previous methods of the *Reference History* is to be found in the very careful study of the condition of the world in the period since the Treaty of Versailles in 1919. It is too soon to make elaborate deductions on this apparent change in the aspirations, motives, and methods of many modern governments. Nevertheless, this part of the work is a distinct addition to previous editions of the *History*, in that it deals with the effects of the World War, of the Treaty of Versailles, and of the recent revolutions in several of the most important countries of the world. This material is particularly useful to those who desire to know how far the process of the political reorganization of the world has gone and what the difficulties of such reorganization are.

The Twofold Plan

In this revision the editors have carried out the plan adopted in the previous edition, namely a division of the work into two main parts: Part One, *World History*, treating the periods of history from the earliest times to the present; and Part Two, *National Histories*, treating the histories of all existing countries. Under the title *World History* is included a summarized history of five great chronological epochs of Western Civilization, systematized into corresponding sections; namely, Ancient (to 476 A.D.); Medieval (477 to 1492); Early Modern (1492 to 1814); Nineteenth-Century (1814 to 1914); and the World War (1914 to 1919). The events and international complications since the War are so significant, however, that a new section has been added under the title of the Postwar Period. In this section are reviewed the provisions of the adjustments stated in the Treaty of Versailles, the applications of the Treaty, and the departures from the text of this Treaty and from previous treaties during the last decade. Then follows the section devoted to *National Histories*, i.e., to the histories of the independent nations now existent, arranged on the plan of a narrative summary of the development of each country, followed by a brief chronology of the most important events down to the present day, in the order in which they took place. This plan of a separate treatment of the development of the principal countries in the world from their appearance in human history down to the year 1934 has made necessary a rearrangement of materials, principally by the omission of events and tendencies which later experience has shown to be less significant than they seemed a quarter of a century ago. This rearrangement makes available the necessary space for the histories of all existing countries, involving individual treatment and including a brief description of their political and social organizations, products, physical features, population, area, relations with other countries, and status in the world system. The whole thus forms for each country a brief but logically developed historical narrative, together with what is in effect a historical gazetteer of the world and its main political divisions.

Scope of Chronologies

Old-fashioned chronologies were made up chiefly of the succession of rulers, the carrying on of wars, the conquest of other countries near and far, the struggle of dynasties, and the personalities of great captains; such characters as Alexander and Caesar and Mohammed were treated as elements in military operations. It has been the aim of this historical summary to include not only the political and military events of the world, but also, yielding to modern ideas concerning the value and usefulness of chronologies, to record outstanding social, industrial, and literary achievements. Great inventions, the founding of new religions, the publication of momentous books, the appearance of new modes of transportation, are all as much a part of history as are battles, sieges, and sudden deaths.

National Histories

The larger portion of the work is devoted to the *National Histories*. The chronologies of this part are meant to establish dates of special significance in the history of the particular country under consideration; but wars and treaties, international congresses and agreements, and kindred events always extend their effect to more than one country. The discovery of a new explosive, the introduction of motor-driven vehicles, mechanical improvements in airships, go as far in altering the development of a country as a victory or a defeat or the assassination of a national leader. Such events are in this work generally treated in the chronology of each of the countries involved, the various incidents being linked by cross references, so that the reader may approach them from various angles.

The publishers and the editors have no purpose of assessing the character of modern governments; they aim only to bring within brief compass carefully prepared and authenticated statements as to what has actually taken place in the important nations of the earth.

Treatment of United States History

Naturally, an American dictionary, the latest in the long succession of Webster Dictionaries, gives special attention to the United States of America, including sketches of each of the States, territories, and dependencies, followed by brief chronologies of the most important events. In revising the work on the State governments, Professor Conover has availed himself of the aid of officials of the State governments, and has made use of new material on the histories of the States, bringing down to

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date the principal events in each. The material as it now appears will be of special value in the investigation of State governments, constitutions, and constitutional amendments, and of electoral and judicial alterations of the plan of government. It is a key to important events and achievements not only as they affect the separate States but also in their broader relation to and effect upon national progress, public welfare, and changes in governmental organization. Directly after the section on the States and dependencies is one devoted to the Presidents of the United States, consisting of a concise narrative summary of the chief incidents in the public and private career of each president, followed by a brief chronology of the important dates of his life.

Canada

The important section in the *National Histories* containing the historical outline and organization of the Dominion of Canada and of the Canadian Provinces has been written by George M. Wrong, Professor of History in the University of Toronto.

Alphabetic Arrangement

In Part Two the plan is to treat every nation that is independent as one of the family of nations and to place it in its alphabetical position in this arrangement. According to this method, those countries that are parts of an empire or nation, such as dependencies and colonies, are treated under the history of that empire or nation. The name of each such constituent country, dependency, etc., is also entered in its alphabetical position, with a reference to the main country of which it is a part. Part Two is thus on a strictly alphabetical basis. Notwithstanding the difficult task of getting definite information on some of the newer nations, especially in their later aspects, the searcher for data will find the most recent information under the name of that country, except in the case of a few countries whose status has not been permanently settled since the World War.

The TABLE OF CONTENTS on the page following this PREFACE shows at a glance the location of the sections, and any desired details should be found through the Index to the REFERENCE HISTORY. The intention is to make the *World History* and *National Histories* sections of this work as convenient and comprehensive as possible so as to serve the needs alike of the casual inquirer, the reader, the student, and the research worker.

The Index

A special index to the whole history is placed at the end of this volume. Its aim is to open the way to all references to persons, places, events, etc., each under a specific name or word. In addition to these specific references, much information on any particular subject may be found indexed under topics, so that the INDEX serves also as a topical analysis.

Special Features of National Histories

It will be noted that some of the national histories and chronologies, especially those of European nations, begin with the year 1648, when, by the Treaty of Westphalia, the map of Europe was largely remade, and the political status of Europe largely determined, in a form which lasted until the World War. The Treaty of Versailles of 1919 established a large group of new or altered countries in Europe, and also wrought many changes in the colonial possessions of European powers. The most important events of the greater European states previous to 1648 make up the bulk of entries in the Medieval Period and Early Modern Period down to that date. Such events are therefore noted in the *World History* and omitted from the *National Histories*, though general cross references direct the reader to the sections where such earlier national events may be found. The matters chronicled are very numerous, and if not found in the *World History* section should be looked for in the *National Histories* section.

Two Services in Mind

Throughout this historical portion of the Dictionary two services have been especially kept in mind. The first is to help the reader in a way similar to that of the vocabulary of the Dictionary, by enabling him to find out quickly just when a thing happened. Even the experienced investigator may often help himself by making sure of a date that is the point of departure for further research. The other service is to show how the present organization of the world has come about. If the investigator desires to find out from this record the succession of events, the chronologies will bring home vividly to his mind how in the history of the human race a cause produces an effect which in turn becomes the cause of the next effect. Thus the student of the World War and its consequences will find in the historical outlines of the various countries during the last twenty years, and particularly in the narrative account and in the chronologies of the *World History* for that period, many of the details of that great conflict and the important events of the years following. Further study of the decades immediately preceding 1914 will enable him to discover some of the essential reasons for the hostilities that led to war.

Illustrations and Maps

Special attention is called to the full-page photogravures and maps in color, prepared exclusively for the *Reference History.* All the illustrations are entirely new and present a remarkably fine selection from types of the chief government buildings, structures famous in history, World War monuments, and notable high buildings. The four pages of portraits of the presidents of the United States are of particular interest. The historical maps provide accurate geographical information and on the modern maps the latest official spelling of names is used in conformity with the revision of the Gazetteer in the main part of the Dictionary.

Collaboration in Editing

The responsibility for both the accuracy and the usefulness of this work must fall upon the general editor and those who have co-operated in producing this section of the Dictionary. William S. Ferguson, Professor of Ancient and Modern History at Harvard University, has prepared the section on Ancient History, both in the preceding and present edition. For the Medieval Period, Charles Howard McIlwain, Professor of Science of Government at Harvard, is the authority. The Editor in Chief is responsible for the Early Modern Period and the Nineteenth-Century Period, in the present edition. The period from the outbreak of the World War to the present day (World War Period and Postwar Period) has been the province of Professor Bernadotte E. Schmitt of the University of Chicago. Everett Kimball, Professor of Government at Smith College, has prepared all the historical outlines and chronologies of the *National Histories* as well as the lives of the presidents of the United States. For the important work on the States, territories, and dependencies of the United States, including both historical outlines and chronology, Professor Milton Conover of Yale University has provided the material.

Backed by the responsibility of these first-hand investigators, authors, and teachers, the editor feels confidence in the accuracy of the work both as to the facts, dates, and results of important historical events. His main work has been to make plans in conjunction with the experts of the G. & C. Merriam firm to apportion the work and carefully to read and discuss the manuscripts submitted by the associate editors. Errors and misprints may be found in the most carefully reviewed sections of such a work in spite of the learning of the contributors and the care of the editor, but it is hoped that they have been reduced to a minimum by the repeated searches to perfect the matter in copy and in proof.

The purpose of editor, contributors, and publishers has been to help people of all kinds — experts, librarians, authors, educators, public men, and general readers — to find their way to exact information on the subjects treated in this part of the Dictionary. The aim of all concerned in the production of this edition of Webster's Dictionary is to aid its users to understand the world in which they live.

ALBERT BUSHNELL HART

Cambridge, Mass.

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REGNUM PARTHORUM
Syria
Aegyptus
Cyrenaica
Numidia
Pontus Euxinus
Mare Caspium
Mare Germanicum
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EUROPE
after the
PEACE OF WESTPHALIA
IN 1648
ENGLISH MILES
0 50 100 200 300 400
The Boundary of the Empire is shown by rule on black
Longitude East from Greenwich
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A REFERENCE
HISTORY OF THE WORLD

FROM THE EARLIEST TIMES TO THE PRESENT

BY

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PART ONE. WORLD HISTORY

I. ANCIENT PERIOD: EARLIEST TIMES TO 476 A.D.

Historical Outline

A discussion of ancient history covers the field from the **origin of man** upon the earth down to some arbitrarily fixed date. The fall of the Western Roman Empire (**476 A.D.**) is usually taken as the date at which **ancient history ends.** For the greater part of this period, no absolute chronology exists. In the first epochs time is reckoned not by years, but by geological ages and, even after man left remains from which his history may be reconstructed, dynasties and eras give a more correct idea of the passage of time than do uncertain dates.

According to the testimony of geology and anthropology, man existed on the earth in the **Early Stone Age,** which is placed between 50,000 and 125,000 years ago, after the third descent of the polar icecap and during the third long warm interval. Traces of man during this period are found, and his primitive culture may be reconstructed from the stone implements buried in the glacial drift. The **Middle Stone Age** occurred during the fourth descent of the icecap, in which period mankind was driven south or took refuge in caves and adapted himself to the altered conditions. The **Later Stone Age** began between 8,000 and 10,000 years ago with the fourth warm interval, which still continues. It was in the Later Stone Age that actual historical records were first made, and from this period onward various nations have arisen at different times and have developed their cultures.

The **Egyptian Empire,** along the lower Nile in Africa, was the home of one of the two **earliest civilizations** of which authentic historic record was preserved. By means of picture writing and hieroglyphics, as well as by buildings, sculptures, and articles of use that have been preserved, the culture and civilization of the early Egyptians may be studied. The **earliest** fixed **date in history** is determined by the Egyptian invention of a **calendar** (**4241 B.C.**). How long the Egyptian Empire had existed before this there is no means of knowing, nor can it be determined when the race emerged from the Later Stone Age.

At the same time, though by independent development, emerged the **old Babylonian Empire.** The plain through which the Tigris and Euphrates rivers flow was occupied by **Sumerians and Semites** long before 3500 B.C., and city-kingdoms were founded and a culture developed, records of which have been preserved to us by the system of cuneiform writing. The Semitic people, who were descendants of the nomads occupying the Arabian Desert, mastered the entire valley; and in the age of **Sargon** (2870 B.C.) a Semitic empire was established which exhibited much of the Sumerian culture. This composite empire lasted perhaps until the 23d century B.C., when it was displaced by a new Semitic invasion, that of the Amorites of Syria, and the **supremacy of Babylon** was then established **under Hammurabi.**

Farther north, on the upper course of the Tigris, was the **Assyrian Empire.** There, sometime before 3000 B.C., the Semitic nomads of the desert settled at Ashur. They came alternately under the influence of the Babylonians to the south, to whom they were vassals, and of the Hittites in the west and drew their culture particularly from the Aramaeans, or Syrians. During the reign of **Sennacherib** (705–681 B.C.), Babylon and Judah were conquered, a vast empire was developed, **Nineveh was refounded** as the capital city, and an elaborate administration was developed. The Assyrian army proved invincible.

The Assyrian Empire fell before the onslaught of the Chaldeans, and under **Nebuchadnezzar** (604–561 B.C.) **Babylon** was the home of the **highest civilization** yet developed. While these Semitic kingdoms were developing in the Tigris-Euphrates valley, other Semitic people like the **Aramaeans** and the **Hebrews** in Syria and Palestine, though reaching no such material grandeur, developed a culture even more important. Particularly was this true of the Hebrews, who gave to the world the monotheistic idea.

The **Medo-Persian Empire** developed northwest of the Persian Gulf, founded, not by a Semitic people, but by a branch of the great Indo-European family. About 550 B.C., under **Cyrus** the Persian, the Medes were defeated and the foundations laid for an empire which rapidly expanded, the Chaldean Empire of Babylon was overthrown, and the Semitic east collapsed before the invaders from the north. In 525 Egypt was conquered by the Persian **Cambyses,** and under **Darius** the Persians developed an administrative system which rivaled that of the early Assyrians.

Another branch of the great Indo-European family pushed into India and reached the Ganges, perhaps as early as 1500 B.C. There they developed a culture based on the caste system and their religion was **Brahmanism,** which embodied the doctrine of the transmigration of the soul. In the fifth century B.C. **Buddhism** was developed and for a time displaced Brahmanism, but was gradually driven out of India proper. It still flourishes, however, in eastern Asia, where it numbers as its adherents nearly a third of the human race.

Still farther to the east the **Chinese civilization** was developed. This came neither from the Semitic nor from the Indo-European race, but from the **Turanians** who settled in the valley of the Hwang Ho sometime before 3000 B.C. Here was developed the **Confucian religion,** which ranks in number of adherents next to Buddhism. The **Chinese** at a very early era developed a system of **pictorial writing** from which modern Chinese characters were developed. A literature, the most prized portion of which is included in the **Nine Classics,** was developed sometime before the third century B.C. In the third century, moreover, was built the great **Chinese Wall,** as a defense against the Huns.

The **Hittite Empire** existed in Asia Minor between 1450 and 1250 B.C. The Hittites served as the great connecting link between the east and the west, and although they developed a culture of their own which, as has been seen, influenced some of the Semitic empires, it was as carriers of culture from one region to another that the Hittites were most important.

In the Mediterranean at Troy (2500–1500 B.C.) and at Mycenae in Greece (1600–1200) and at Knossos in Crete (2100–1400), a civilization was developed which has been described by the poet Homer. Excavations have later proved that this civilization existed long before the Greek invasion; and it is now called the **Minoan, Cretan, Mycenaean,** or **Aegean.** It was characterized by vast palaces and buildings and a profusion of gold. Great advances were made in architecture and engineering, and the metal workers developed extraordinary skill.

This civilization fell before the invasions of another branch of the Indo-European race, **the Greeks.** Contrary to the formerly accepted opinion of history, the Greeks on their entrance into the Balkan Peninsula were still in the barbaric, nomadic stage of culture. Beginning about 2000 B.C., the Greeks in a series of invasions attacked and overthrew the Mycenaean states they found. But the conquered gave to their conquerors their culture; and the Greeks, taking what was best from the Mycenaean civilization, developed in their little **city-states** a civilization superior to any that the world had yet seen. About the 8th century B.C. the Greeks began to send out colonies and settled on the islands and shores of the Aegean Sea not yet occupied by them, in Sicily and Italy, and even in southern France.

These colonies spread the Greek ideas, Greek trade, and Greek culture throughout the Mediterranean bases. Coming into conflict with the Persian Empire in the 5th century, they held their own against Darius and Xerxes and maintained their independence. Later in the same century **Athens,** under Pericles, was the center of a classic culture which has never been equaled. The independence of the Greek city-states gave way before the growth of the **Macedonian Empire.** Under **Alexander the Great,** Asia Minor, Syria, Egypt, and even India were brought, at least for a time, under Greek control. More important than the conquest of these countries was the diffusion of the Greek culture, which in a decadent form continued throughout ancient history and even into medieval times.

In Italy, city-states were founded by the **Etruscans,** a people of uncertain origins, perhaps contemporary with the building of the city-states in Greece. The Italians followed with small states,

of which **Rome,** the legendary date of whose foundation is **753 B.C.,** was the most important. At an early date a republican form of government was established and a military system developed which enabled the Romans to conquer the surrounding tribes and gradually to extend their dominion over Italy south of the Po. In so doing they came in contact with the Greek colonies in Italy and Sicily.

Even more important was their conflict with the **Carthaginians.** This was their first non-Italian campaign and the success of the Romans eliminated the Semitic Phoenician state as a possible rival in the Mediterranean. After this first foreign war, the Roman conquest proceeded rapidly. First Greece, then Asia Minor and Syria, then Gaul and Britain were subdued, until by the **reign of Augustus,** the **first Roman emperor** (27 B.C.–14 A.D.), all the countries adjacent to the Mediterranean Sea were included in his dominion. Although expanded under Trajan, the boundaries of Rome remained substantially the same until the onslaught of the barbarians.

Just as the Greeks and Romans had overthrown an earlier civilization, so the Romans themselves succumbed to **barbarian invasions** from the north and east. This process, beginning perhaps with the onslaught of the Cimbri and Teutones (113–101 B.C.), became serious with the invasion of the Marcomanni in 180 A.D. With ever-increasing frequency and intensity the Teutonic tribes pushed into the empire and founded Germanic kingdoms. In **476 A.D.** the last emperor of the west, Romulus Augustulus, was dethroned by Odoacer, the leader of the Herulians, and **the Roman Empire in the West was at an end.**

Chronology

Basis of Ancient Chronology. To construct an exact **chronology of ancient history** from the earliest times is quite impossible. The reason for this is obvious. Such a chronology requires not only contemporaneous and continuous historical records, or writings embodying them, which are frequently wanting, but also a fixed method of reckoning years: an era or some other similar device must have been adopted. The need, however, of this is felt only after a long period of civilization. The Egyptians, with all their care to preserve records of events, had no historical era. If they dated at all, with very few exceptions they dated only by the years of their sovereigns. From this fact, with the fragmentary character of their monuments and literature, and with the possible synchronism of dynasties, arises the great difficulty of determining the Egyptian chronology. The Assyrians during the latter part of their history had an exact method of reckoning years. They named each year after an officer, usually called by us an eponym. Lists of these eponyms have been discovered, several copies, all of which closely agree, covering the period from 893 to 666 B.C. From the record of a total eclipse, 763 B.C., is determined the dates of all these years. This Assyrian canon, from the mention of Ahab, Jehu, Uzziah, and a few other kings of Israel and Judah in the Assyrian annals, has fixed the periods of these monarchs and compelled a modification of the previous understanding of Old Testament chronology. The Hebrews seem to have preserved but few records of their early history, and the lapses of time given in the Old Testament from the period of creation down to the fall of Jerusalem are in a large degree conjectural. In addition to the Assyrian canon for determining dates of partially the same period, there is the **Canon of Ptolemy,** a chronological compilation, with astronomical notes, of Babylonian, Persian, Greek, and Roman kings, commencing 747 B.C., and extending to 137 A.D. This so far as tested has proved an accurate and reliable document, and has been of the greatest service in determining ancient chronology. For the periods of Babylonian and Assyrian history earlier than these canons, there are lists of monarchs, with the length of their reigns, going back to 3200 B.C. These lists have not been preserved or discovered entirely without breaks.

Lists of magistrates or priests preserved in temples or in archives of state were the basis of the ordinary Greek chronology. Thucydides designates the year of the outbreak of the Peloponnesian War as the forty-eighth year of the priestess Chrysis at Argos, when Aenesias was ephor at Sparta, and Pythodorus was archon at Athens. From about 500 B.C. to 293 B.C., we possess a complete list of the Athenian archons, and for the earlier period (from the establishment of the office in 683 B.C.) and for the later period (to 265 A.D.), an incomplete list. This method of reckoning by local magistrates or priests was never wholly abandoned, but in the third century B.C. the Macedonian Kings of Syria computed the years of their reigns from the founding of the dynasty in 312 B.C., and the era thus established — the **Era of the Seleucids** — set an example widely followed in later Greek and Roman times. After the fourth century B.C. Greek historians reckoned chiefly from the **Olympian games,** which were held in 776 B.C., and once in four years thereafter for more than a millennium. Thus, the invasion of Greece by Xerxes fell in the first year of the seventy-fifth Olympiad, or 480 B.C.

The Romans dated an event by giving the name of the two men in whose consulship the event occurred, or occasionally and less formally by giving the name of one consul. Formal lists of the consuls were kept as a part of the public record. Some copies of these lists, in Latin and in Greek, have been preserved and may be found in the "Corpus Inscriptionum Latinarum," Vol. I; they form the basis of Roman chronology. But it is probable that the public records were destroyed when Rome was captured by the Gauls, 390 B.C., and that the lists for the years 509–390 were made up from priestly records or from traditions. For the earlier years, before the expulsion of the kings, the dates rest upon tradition or legend, and have little value. The date of the founding of the city, 753 B.C., however, was universally accepted by the Romans and was occasionally used as a date to reckon from, especially when the period of time that had elapsed was regarded as significant. The system of reckoning **ab urbe condita** is modern and conventional. In medieval and modern times, historians of antiquity long continued to compute time from the founding of Rome or the first year of Abraham (2017 B.C.) or the creation of the world or some similar point; but since the end of the 18th century the practice of dating events, before as well as after the birth of Christ, from a point which is fixed as midnight between Dec. 31st, 1 B.C. and Jan. 1st, 1 A.D., has come into general use. Astronomers, however, have taken a whole year, 1 B.C., as their point of departure, designating it 0, so that the year 323 B.C., e. g., appears in their calculations as 322 B.C.

In this chronological history the dates of the early Egyptian dynasties I–XVIII are from the Chronology of Eduard Meyer and Breasted, which are always the latest that can be given for Egyptian eras. The much earlier dates once current are now pretty generally abandoned by Egyptologists. The dates for Babylonian, Assyrian, and Jewish history are based on the Chronology of the *Cambridge Ancient History* and Albert Ten Eyck Olmstead's *History of Palestine and Syria.*

The following dates must be received as only approximate: Babylonian and Assyrian dates before the ninth century B.C., Biblical dates before the middle of the seventh century B.C., Greek dates before the middle of the sixth century B.C., Roman dates before the beginning of the third century B.C.

Many dates subsequent to these periods cannot be exactly fixed, and hence they are given differently by historical authorities. Sometimes differences arise from different modes of reckoning. Some writers, for example, count as the first year of a ruler the year in the course of which he came to the throne, others begin with the first full calendar year of his reign.

EASTERN NATIONS AND JUDEA

4500 B.C. Predynastic Kingdoms (nomes) of **Egypt** flourishing.

4500–3500. Rise of **Babylonian city-kingdoms.**

4000. Kingdoms of Upper and Lower Egypt probably flourishing.

3500–2900. Sumerian ascendancy in Babylonia.

3400–2390. The **Old Kingdom in Egypt.**

3400–2900. First (Thinite) Egyptian dynasty, beginning with **Menes, reputed founder of Memphis.** Second (Thinite) Egyptian dynasty.

3000–2500. **Early Minoan Age:** development of copper and bronze culture in Crete and Aegean Basin.

2900–2840. Third (Memphite) Egyptian dynasty.

2870–2500. **Dynasty of Akkad:** Semitic ascendancy in Babylonia. **Sargon I,** king of Akkad (Agade), reigns over a wide territory; conquers North Syria. **Naram-Sin,** king of Akkad, builder of the **Temple of the Sun** in Sippar, reigns in Babylonia and is lord of Mesopotamia.

2840–2680. Fourth (Memphite) Egyptian dynasty. Era of **Snefru,** pyramid builder who had commercial relations with Phoenicia, and worked mines in the Sinaitic peninsula. Era also of **Khufu (Cheops),** builder of the **Great Pyramid of Giza,** and of **Khafra,** builder of the second pyramid.

2680–2540. Fifth Egyptian dynasty. Copper and malachite mines worked in the Sinaitic peninsula; the **proverbs of Ptah-hotep** are composed.

2600. **Gudea** patesi (lord) of Lagash (Telloh) in S. Babylonia; a highly advanced civilization, of which there are many remains; commerce extends into Syria and Arabia.

2540–2390. Sixth (Memphite) Egyptian dynasty. Era of **Pepi I.** First Egyptian invasion of Palestine: Palestine and Phoenicia already occupied by Canaanites. Era of Queen **Nitocris.**

2500–2350. First dynasty of Ur. Ur-Engur and Dungi consolidate city-kingdoms of Babylonia.

2500–1850. **Middle Minoan Age** (I and II) in Crete and the Aegean Basin. Contact between Crete and Egypt. **Greeks enter Greece.**

2390–2000. Seventh and eighth (Memphite), ninth and tenth (Heracleopolite), eleventh (Theban) Egyptian dynasties. The first four of these dynasties cover an obscure period of civil wars and foreign invasion; of this period there are few remains. During the eleventh occurred the **rise of Thebes.**

2220–1926. The first Babylonian dynasty. **Babylon** becomes the **chief city in Babylonia.**

2160–1788. The **Middle Kingdom in Egypt.**

2123–2081. Reign of **Hammurabi** — author of the oldest **code of law** extant. Hammurabi unifies Babylonia and imposes code on all cities of N. and S. Babylonia and on Ashur and Nineveh. Babylonian becomes the diplomatic language of the entire Near East.

2000–1788. Twelfth Egyptian dynasty. An era of great prosperity under Amenemhat I–III, Usertesen I–III. Ethiopia is conquered. Trade is extended through Syria and Arabia. The reservoir **Lake Moeris** is excavated; **great monuments at Karnak,** Beni Hasan, and elsewhere are erected.

2000. The **Aryans** — forerunners of the Medes and Persians, as well as of the Indians — **first appear** on the eastern frontier of Babylonia and Assyria.

1926. **Hittites** raid Babylon — first appearance of Hittites in history.

1850–1630. Era computed by some modern scholars for the Hebrew patriarchs **Abraham, Isaac, and Jacob,** according to Biblical tradition. (Abraham is also placed in connection with Hammurabi, 2100.)

1850–1600. Great (palace) age of Knossos in Crete: **Middle Minoan Age** (III). Extension of Cretan culture to Greek mainland.

1788–1580. Thirteenth (Theban), fourteenth (Xoite), fifteenth and sixteenth (Hyksos), seventeenth (Theban) Egyptian dynasties; a period of decline and the domination of the foreign **Hyksos, or Shepherd kings** (probably Asiatic Bedouins).

1746–1169. The third (Kassite, non-Semitic) Babylonian dynasty.

1700. **Assyria** emerges as a small principality.

1630–1200. Era according to Hebrew tradition of the sojourn of the **Children of Israel in Egypt.**

1600–1350. **Late Minoan Age** (I and II) in Crete. Rise of Tiryns and Mycenae.

1580–1350. Eighteenth (Diospolite) Egyptian dynasty. Beginning of the "New Empire." Era of Ahmes I, Amenophis I–IV, Thotmes I–IV, Queen Hatasu.

1580. Ahmes I completes the expulsion of the Hyksos; captures Sharuhen in S. Judah.

1501–1447. **Thotmes III** reigns in Egypt, conquers Palestine and Syria at battles of Megiddo and Kadesh, conquers Nubia, erects a great temple at Karnak. **Greatest extent of Egyptian power.**

1400–1110. Equilibrium between Babylonia and Assyria.

1375–1358. Amenophis IV (Chuenaten or Ikhnaton) introduces **solar monotheism** into Egypt. Era of the **Tell el-Amarna letters,** a correspondence of Egyptian viceroys in Palestine, of kings of Babylon, and of a king of Mitanni with the Egyptian court. Egypt's possessions in Syria are threatened.

1375. Hebrews threaten land of Canaan.

1350–1200. Nineteenth (Diospolite) Egyptian dynasty. Era of Seti I–II, Ramses II, Meneptah.

1350–1100. **Mycenaean Age (Late Minoan III).** Greeks become masters of Aegean archipelago and occupy west coast of Asia Minor. Decline of Mycenaean civilization.

1313–1292. Seti I claims to have reconquered Palestine and Syria; defeats the Libyans and allies.

1292–1225. **Ramses II** (Sesostris) subdues Palestine and Syria; concludes peace with Hittites; is probably the **Pharaoh of Israel's oppression.**

1225. **Phoenicians already using the alphabet.**

1200–1090. Twentieth (Diospolite) Egyptian dynasty. Era of Ramses III, who mines in Sinai, trades in the south, and gains a great victory over piratical invaders of Palestine. Close of the period of the New Empire and beginning of decline.

1200. Phrygians enter, Hittites leave, central Asia Minor. Fall of Hittite power. Near this time, probably, under Meneptah or his successors, the **Children of Israel,** led by Moses, **leave Egypt.**

1193. The **Trojan War begins,** led by Agamemnon of Mycenae. (According to a late Greek computation.)

1190. Philistines occupy coast of Palestine.

1183. **Troy is taken and destroyed.**

1169–1037. Fourth (Pashe, Semitic) Babylonian dynasty.

1160. Era of **Israel's entrance into Canaan.**

1150–900. During the weakness of Egypt, Babylonia, and Assyria, the small states in Palestine and Syria become important and the **Phoenicians** are the **chief seafaring people** of the Mediterranean.

1146–1123. **Nebuchadnezzar I,** king of Babylon, a great conqueror, defeats the Elamites and the Lulumi, and wages war with the Assyrians.

1115–1102. **Tiglath-pileser I** firmly establishes the **Assyrian Empire; he advances westward beyond the Euphrates.**

1115–1010. **Era of the Judges** in Israel.

1100. Epoch of the return of the legendary **Heraclidae,** and of the **Dorian migration into Peloponnesus.**

1080–1020. Era of **Eli, Samuel,** and **Saul** in Israel.

1050–945. Twenty-first (Tanitic) Egyptian dynasty of priest kings.

1017. **David reigns** at Hebron **over Judah,** probably as vassal of the Philistines.

II. MEDIEVAL PERIOD: 477 A.D. TO 1492

Historical Outline

THE word "medieval" is used of the long period beginning at the extinction of the Roman Empire in Western Europe. Its end has been variously conceived, sometimes as being coincident with the fall of Constantinople, in 1453, sometimes with the spread of the Renaissance over Western Europe about 1400; more often, with the discovery of the New World, in 1492, or the outbreak of the Protestant Revolution, in the beginning of the sixteenth century. The transitions from ancient to medieval and from medieval to modern times were gradual and, of course, not perceived by contemporaries.

These **great divisions of history** are made mainly for convenience of treatment. But they are based on something more than this, for the chief ideas and forces that underlie the development are, in the Middle Ages, strikingly different from those of either ancient or modern history. Our choice of the particular points of division, however, will depend upon which of these ideas and forces we consider fundamental. In this work the expression "Medieval History" is applied to all the series of European events and transformations between the establishment of the first barbarian kingdom in Italy, in 477 and the discovery of America, in 1492, the period forming an epoch of **great changes in** the conditions and grouping of **European nations.**

Whatever may be the historical phraseology, the old forces of civilization in Europe certainly seemed markedly to decline with the decadence and extinction of the western division of the Roman Empire, and Europe was transformed into a condition so unlike that which prevailed during the long Roman ascendancy as to mark a **new era in human history.** It was an era in which civil society was broken up and new races and new institutions were forcibly implanted. Only in the towns and cities of the south of Europe, and in a few other favored localities were the remains of the old activities of the Romans any longer discoverable.

Two groups of causes of this great transmutation of Europe may be noted. The first relates to the internal **decay of the Roman race** and of the institutions which it had created. The second relates to the upheaval and progressive westward and southern **movement of the barbarian nations** across the line of the Danube and the Rhine.

The causes of this movement of the Teutonic nations are obscure and difficult to separate from legend. The fact of the barbarian invasions is sufficiently tangible, but not the impelling forces. The Germanic nations, seated in the north and far east, after having been held at bay for several centuries, at last broke over the frontiers of Rome and, pouring through the passes of the Alps, overran Italy, center of the Empire, defeated the armies of the degenerates, took the capital, uprooted the unreal government of Romulus Augustulus, and instituted a barbarian kingdom in its stead. This was the **kingdom of the Herulians;** and with this event the chronological outline of Medieval History may properly begin.

While the barbarian invasions were sweeping over the Roman Empire, the Eastern Empire maintained itself and was powerful and flourished long after the Western Empire was extinguished. **Justinian** performed one of the greatest of services to Rome by the codification of the **Roman law,** which later served as the foundation for the **civil law** of nearly all the civilized nations. With the fall of the Western Empire, the political supremacy of Italy vanished and its influence on subsequent history was chiefly due to the power of the papacy, seated at Rome, and to the vigor of the Renaissance.

A new and unexpected force arose on the eastern borders of European commerce and influence, when, in 570, was born **Mohammed,** the Arabian prophet, founder of the religion which today rivals Christianity in the numbers of its adherents. This religion, originating in Arabia, spread through Persia, Palestine, and Syria into Africa and Spain. Its triumphal progress was checked by the Franks under **Charles Martel** in 732, the Saracens were driven beyond the Pyrenees, and then slowly yielded till, in 1492, the last of their kingdoms, **Granada,** went out of existence. In 1300 the **Ottoman Turks,** from the interior of northern Asia Minor, who were also followers of the Prophet, and who had long assailed the Eastern Empire, began their conquests, which culminated in the **capture of Constantinople,** in 1453, and the destruction of the empire. The Turks held Asia Minor, Greece, Northern Africa, and the Balkan and Danube region. Till the end of the 17th century they threatened Christian civilization in Eastern Europe. The **Ottoman Empire** maintained itself over Christian subject peoples till the close of the World War in 1918.

The barbarian kingdoms which were founded in Italy had little subsequent effect on Europe. The central power was shifted to Gaul, where the **Franks,** under **Clovis,** accepted Christianity and laid the foundations for the modern state of **France.** It was a prince of the Frankish royal house founded by Clovis, **Charles Martel,** who checked the Mohammedan invasions, and under **Charlemagne** the Western Empire was revived. After Charlemagne's death (814) his empire soon fell to pieces, but was revived under **Otto the Great** as the **"Holy Roman Empire of the German Nation,"** which claiming, but never exercising, world dominion, was the strongest temporal force in Europe during the Middle Ages.

A second force of even wider importance was **the papacy.** Through the agency of the missionaries, priests, and monks of the church, the barbarians were everywhere Christianized and brought to adopt the essentials of Western civilization. What little remained of the classical learning of antiquity was kept alive in the monasteries of the church. The influence of the pope, however, was not confined to spiritual affairs: he claimed the right to excommunicate and depose sovereigns who disobeyed the commands of the church; and eventually brought together a temporal dominion, enveloping Rome, as a defense of his person and rights in rude times.

The political and social system of Western Europe throughout the greater part of the period was based upon the **feudal system,** by which the functions of the state were transferred from the central authority and exercised by individuals. Socially, the individual and the land were closely associated and, according to the strict feudal theory, there was no land without its landlord and no man without his overlord. Allegiance was owed, not to the state, but to the overlord, who in turn might be the vassal of a greater noble.

In Asia the Sui dynasty flourished in China, but was overthrown in the 11th century by the Tatars; and the great Mongol emperor, **Kublai Khan,** established an empire which included all of Asia, save Hindustan and Arabia, and stretched into Europe. **Buddhism** was introduced into Japan, which meant the introduction of Chinese civilization into that kingdom, and in the 7th century the imperial dynasty of the mikado was established.

In the medieval period two great spiritual and intellectual movements took hold on Europe, — the Crusades and the Renaissance. In the spiritual sphere, beginning in the 11th century, came an outburst of religious enthusiasm which culminated in the **Crusades.** This passionate revival resulted in seven military expeditions to recover Jerusalem and the Holy Land from the possession of the Infidels, and lasted through the 12th and 13th centuries. The Crusades were among the greatest events in medieval history; they increased the power and authority of the papacy and the church, and also of the princes, stimulated intellectual growth, widened men's horizons, developed commerce, hastened the rise of towns, and established a tradition of the right and ability of Europe to exercise power in Asia.

About the year 1300, began the revival of learning known as the **Renaissance,** which first showed itself in Italy with the appearance of **Dante,** but quickly spread throughout Western Europe. It began with an almost passionate study of classical learning and antiquities; it widened into a magnificent literature in the modern tongues, which were by this time established. Greek philosophers and mathematicians had long before reached Europe through the Arabic versions. After the capture of Constantinople by the Turks in 1453, these writings stimulated the thought of European philosophers and literary men, and ultimately led to the questioning of the religious authority of the church.

From being purely a literary revival, the Renaissance became an artistic movement and the sculptors and painters of that period have never since been equaled. As a result of this movement, men sought to widen their knowledge of the world and in the **Age of Discoveries,** beginning with the 15th century, under the lead of Prince **Henry the Navigator,** explored the coast of Africa, discovered the Cape of Good Hope, and finally reached America.

In England, the Saxon kingdom fell before the invasion of the Normans in the 11th century, and a strong monarchy was established by **William the Conqueror,** which was developed and protected by his successor, Henry II, at the expense of the great feudal lords. During the reign of John, the germ of popular government was established in the **Great Charter,** while just at the end of the period the **Tudor** reigning house was established by Henry VII, which made England a strong national state.

In Spain the period closes with the accession of **Ferdinand and Isabella** and the union of various little kingdoms into a powerful national despotism.

In France feudalism retained its hold, and the development of a supreme national monarchy was postponed; while **in Italy** the Italian cities and duchies prevented the growth of a national state, but by their rivalries stimulated the intellectual revival. **Germany and Austria,** though possessing an inchoate nationality, developed no strong government, but consisted of a multitude of jurisdictions, owing shadowy allegiance to the Emperor.

Thus medieval history includes the **long struggle of the Christian Church** to maintain itself in a contest with the new barbarian conditions, to resist the aggressive assaults of Islam, and finally to readjust itself to the changing forces of the time, economic, political, and intellectual. It leads up to the story of the Crusades and of the institutions of chivalry which came afterwards. It describes the struggle of the papacy and its gradually developed constitution, first with the Empire, then with the national states whose powers and organizations were maturing as a result of the Empire's weakness.

It includes the **revelation of a new world** hitherto unknown except vaguely in the story of Atlantis, the sagas of Icelandic bards, and the tradition repeated by Mandeville. It is the background of the growth of representative institutions, the economic and political advance of the towns, and in the westernmost parts of Europe the increased participation in government of the middle class. It brings Europe up to the revival of art and learning, the reformation of religion, the division of the Continent into nations under conditions political and ecclesiastical which prepared the ground for the division of the church and nations into Catholic and Protestant.

Chronology

THE BARBARIAN ASCENDANCY IN EUROPE

477 A.D. The Herulian king, **Odoacer,** confirms his authority in Italy. From his capital of Ravenna he maintains his authority in Italy for fourteen years and is recognized as "Patrician" by the Emperor Zeno.

486. **Clovis,** or Chlodwig, king of the Franks, **invades Gaul,** defeats the Roman Governor Syagrius at **Soissons,** and by this victory destroys the Roman ascendancy north of the Alps.

493. **Theodoric** the Great, king of the East Goths, lays siege to Ravenna and compels Odoacer to surrender it. Theodoric establishes the **Ostrogothic kingdom** in Italy, and Odoacer is put to death.

496. Clovis converted to Christianity and baptized.

507. Clovis engages in a war with the Visigoths, whom he signally defeats in a battle at **Poitiers,** and obtains the mastery of Aquitania.

511. He dies and his territory is divided among his sons, Theodoric, Childebert, Clodomir, and Clotaire.

525. **Boethius,** the philosopher, author of the "Consolation of Philosophy," after filling the highest offices under Theodoric the Great, is **falsely accused** of treason by his enemies; he is imprisoned and executed by the order of Theodoric, who dies in the following year.

527–565. **Justinian** reigns over the Eastern Roman, or Byzantine, Empire.

529–534. Justinian promulgates the **Code, Institutes, and Digest** — law books which have profoundly influenced the whole subsequent European legal development.

Chosroes I, greatest of the Sassanid dynasty, **ascends the Persian throne;** he divides the empire into four districts, encourages learning, and introduces many reforms.

534–5. Justinian's general, **Belisarius,** leads an army against the Vandals in Africa and the Ostrogoths in Italy. He **regains Sicily.**

536. Belisarius continues successful warfare against the Ostrogoths and enters Rome in triumph.

537. Justinian consecrates the cathedral of Saint Sophia, which still stands, in Constantinople.

538. Vitiges, king of the Ostrogoths, besieges Belisarius in Rome, but is repulsed.

539. Belisarius attacks Vitiges in Ravenna and takes the city.

541. He is recalled from Italy and carries on a war in Syria against the Persian invasion of Chosroes I, whom he successfully withstands.

552. Narses, who succeeds Belisarius in the command of the Italian army, vanquishes and slays Totila (*Baduila*), king of the Ostrogoths. In the following year the **Ostrogothic kingdom is finally destroyed** by Narses, and Italy is restored to the dominion of the Emperor Justinian; Narses is appointed the first exarch (*i.e.*, governor) of Italy, with Ravenna as his capital.

554. The Alemanni and Franks invade Italy; they are routed by Narses.

558. **Clotaire I unites Franks** into a kingdom.

561. On Clotaire's death the nation is again divided into petty states.

566. The kingdom of the Gepidae, in Pannonia, is destroyed by the Lombards and Avars under Alboin, who marries Rosamunda, daughter of the king of the Gepidae.

III. EARLY MODERN PERIOD: 1492 TO 1814

Historical Outline

Modern history strictly includes the whole recent progress of mankind to the present day. It is convenient, however, to group together the events and tendencies of the three centuries ending with the close of the Napoleonic period, during which the habits of thought and government, the organization of society, and the religious beliefs of the Christian world took on the forms with which men of today are familiar.

This modern era opens with the **Age of Discovery.** During the Renaissance man was finding himself; now he found the world. No change in the whole course of history is more significant than that which resulted from the expansion of the Roman and the Medieval world, which took no account of anything outside the Mediterranean region and western Europe, into the modern world which includes Asia and the Americas and the isles of the sea. The epoch-making voyage of Columbus and the discovery of a sea route to India by Vasco da Gama meant more than the discovery of new lands and the opening up of new spheres of trade. It opened the way for expansion from Europe and the foundation of colonies east and west, which developed into new nations, holding different ideas from those of the mother countries.

In this Age of Discovery **Spain was pre-eminent.** The strong monarchy established by Ferdinand and Isabella was in a position more favorable than that of any other European state to throw its strength and resources into the foundation of a colonial empire, and the Spaniards were bold and successful navigators and traders. Spain took full advantage of her opportunity and laid the foundation for a colonial empire not inferior in extent and even in duration to that of ancient Rome or of the modern British Empire. She impressed her language, her religion, and her culture upon South America, the West Indies, portions of North America, and the Philippines; and down to 1815 her control was still active. Then the colonial empire collapsed and finally disappeared, except for Cuba, Puerto Rico, and the Philippines, which lasted into the twentieth century; Spanish language and religion remained the basis of South American culture.

In this period came the logical result of the religious and cultural impulse of the Renaissance — the **Protestant Reformation.** Beginning in a series of attempts to remedy abuses of the Roman Catholic Church the movement, under Luther, Calvin, Zwingli, Knox, Huss, and their followers, caused a schism which has never been healed. The chief issue was of doctrine and of culture, the denial of the authority of a universal church and a reliance on the dictates of the individual conscience. Not only did the Reformation put an end to the universality of the Roman Church, but in the religious wars which followed it dislocated the political power and weakened the influence of that other great medieval institution, the Holy Roman Empire.

The Age of Discovery opened the world to European settlement, while the **Reformation** led to the foundation of Protestant powers which denied the papal authority. Both Catholic and Protestant nations entered the race for colonial expansion. Thus **France,** through the discovery of the St. Lawrence and the explorations of her *voyageurs* and missionaries, opened up and **acquired an empire in North America,** including the valleys of the St. Lawrence and the Mississippi. So, too, **England,** after breaking the naval supremacy of Spain, **founded colonies along the Atlantic seaboard** which were a perpetual challenge not only to the papal power, but to the sovereignty which Spain claimed over that region. In the Eastern Hemisphere, first the **Portuguese** and then the **Dutch** acquired **colonial possessions** and tapped the lucrative trade of India.

The period was favorable to the development of **strong national states. England** had a system of representative government in the elective House of Commons, but allowed Henry VIII to exercise an almost absolute monarchy. Henry's daughter Elizabeth, also, was a genuine national sovereign, though arbitrary. The popular element in the government, however, joined issue with the Stuart kings, and the civil war against Charles I laid the foundations for a real parliamentary government which was superior to the crown and which after the accession of William III became supreme.

In **Russia** Ivan the Terrible and, at a later date, Peter the Great, by unchecked absolutism forced the nation into contact with Europe and made a beginning of modern political organization. In **Austria** and **Germany** the **Holy Roman Empire** persisted in a feeble and declining form, a bar to the development of vigorous nationalism, a poor defense against the onslaughts of the Turks. During this period the Baltic powers of **Denmark** and **Sweden** experienced periods of prosperity and wide European influence, especially under Gustavus Adolphus and Charles XII of Sweden. **Italy** was the prey of the ambition of the greater European powers and the scene of frequent wars and invasions. In **France,** beginning with Francis I, a strong national state was developed which, though torn by the religious wars of the Huguenot period, became, under Louis XIV, the strongest factor in European life and politics.

The 18th century witnessed the struggle of Europe against the supremacy of Louis XIV. In a series of wars which encircled the world, **France was defeated** in India, America, and Europe, and **England** emerged as **the most powerful modern state** with the widest colonial possessions. **Prussia** rose as a force to be reckoned with and became the center of Germany.

The 18th century closed with what may be called the **Era of Revolution.** In **America** the English colonists, questioning the right of England to control their economic development, and demanding wider powers of self-government, declared their independence. With France as their ally, they achieved their aim, and the **United States of America** was founded, which was destined to make the military force and political ideas of the New World a factor in European policy. In **France** the **revolution** was of even greater effect; it gave point to the teachings of the philosophers of the previous age. The despotism, which had continued from the days of Louis XIV, based on the feudal system, fell before the attack of democratic ideas. Feudalism was destroyed. **France became a republic,** and her republican ideas permeated even the most despotic systems of Europe, while her revolutionary armies attempted by military force to mold these ideals into enduring nations.

From the democratic enthusiasm of the French revolutionary republic developed the **military empire of Napoleon.** Once again, as in the time of Louis XIV, France dominated Europe and one man dominated France. Spain and Italy were conquered; Prussia and Austria were humbled; and Napoleon drew the boundaries of new states, placed new sovereigns on old and new thrones, and impressed his system on all Europe. Only England and the declining Turkish aggregation of peoples remained outside his power. In 1812 he invaded Russia, but the very vastness of that empire defeated him, and a disastrous retreat was the beginning of his downfall. Under the lead of England, the European nations rallied and on the field of **Waterloo** were finally successful, thus putting an end to the ambition of France to dominate Europe.

The **Congress of Vienna** in 1815 remade the map of Europe and established boundaries and policies which, with the exception of the unification of Italy and Germany, persisted throughout the 19th century. Thus the year 1815 may well be taken as the ending of early modern history and the beginning of nineteenth-century history.

Chronology

For events affecting any one country only, or especially, see the history of that country in the National Histories, beginning page 59.

ERA OF THE RENAISSANCE AND REFORMATION

1492. **Christopher Columbus,** leading an expedition under the auspices of Ferdinand and Isabella, **reaches America,** October 12, discovering Hispaniola and Cuba; on his second voyage, made in 1493, he discovers Puerto Rico, and on his third voyage, in 1498, he reaches Trinidad and the coast of South America. From Hispaniola he is **sent back to Spain in chains** (1501), but is allowed his liberty and makes his fourth and **last voyage** in 1502. **Columbus dies in neglect and penury** at Valladolid, May 20, 1506.

1493. Charles VIII of France makes a treaty of peace with Maximilian, just become Emperor of Germany, at Senlis. Maximilian attempts to reform the Empire and institutes the **Aulic Council** (1501).

1494. The **Medici** are driven from Florence, and **Savonarola,** the Italian reformer, restores the republican form of government.

The **Franco-Italian wars,** waged between France and Spain, break out; they continue for twenty-five years, having for their cause the claim of Charles VIII to the throne of Naples. In these conflicts the Italians range themselves alternately with the Spaniards and with the French.

Birth of **Hans Sachs,** November 5; most famous of the German Meistersingers.

1495. After a year's campaign, **Charles** conquers Naples, but **is forced to withdraw from Italy,** owing to a league formed against him by the pope and Ferdinand (of Naples), who regains the Neapolitan crown.

1497. **Mainland of North America** discovered by **John Cabot.**

Vasco da Gama sails around the **Cape of Good Hope.**

1498. Vasco da Gama finds an all-water route and arrives in **India.**

Sebastian Cabot traces a part of the **Atlantic coast** of North America.

Savonarola executed as a heretic at Florence, May 23.

1499. Amerigo Vespucci and Ojeda trace the eastern coast of South America. Hence the name **America** eventually given to both continents.

The **Swiss** practically acknowledged as **independent** after war with Maximilian of Germany.

1500–1600. Period of **Renaissance in French literature:** Rabelais (*Pantagruel* 1533), Marot, Calvin, Amyot, Bodin, Montaigne (*Essays* 1580).

1500. Ludovico Sforza regains Milan from the French, who had seized it a year before.

Birth of **Benvenuto Cellini,** Italian artist in metal and author (*Autobiography*). Died 1571.

1501. The **French,** by Louis XII's conquest of Naples and with the aid of Ferdinand of Aragon, **re-establish their power in Italy.**

Cesare Borgia, son of Pope Alexander VI, gains dominion of Faenza, Rimini, and Pesaro, with the title of Duke of Romagna.

1502. **War in Italy breaks out again** between the French and Spaniards resulting in the French being driven from Naples.

1506. On the death of Philip I of Castile, Ferdinand assumes the rule as regent for Joan the Mad.

Madagascar is discovered by Portuguese.

Church of St. Peter at Rome begun on site of ancient church, completed in 1590; dedicated 1626.

1508. Maximilian of Germany, Pope Julius II, Louis XII of France, and Ferdinand of Aragon form the **League of Cambrai** against Venice; the Venetians are overcome at Agnadello (1509).

1511. Pope Julius II forms the **Holy League** for protection against France; in this Spain, Venice, and England (under Henry VIII, who has married Catherine of Aragon, widow of his brother Arthur, and daughter of Ferdinand and Isabella) are united against Louis XII.

1512. The **French** win a victory at Ravenna, April 11, but are **forced to withdraw from Lombardy;** Sforza dynasty is restored in Milan; Ferdinand of Aragon conquers Spanish Navarre.

The **Medici regain** their **authority** in Florence.

1513. Henry VIII of England, with the aid of Maximilian of Germany, **invades France;** the French are overwhelmed in the **battle of the Spurs** at Guinegate, August 16; Thérouanne and Tournai are taken by the English.

Leo X (Medici) becomes a renaissance pope.

England is invaded by the Scots under James IV; Scots are defeated at **Flodden Field,** September 9, and James is killed; Queen Margaret becomes regent for her son, James V of Scotland.

Balboa discovers the Pacific Ocean.

Niccolò Machiavelli writes *The Prince,* a classic in the history of political thought.

1514. Henry VIII makes treaties of peace with Scotland and France.

1515. **Francis I,** succeeding Louis XII as king of France, **marches into Italy,** and with the aid of the Venetians defeats the Swiss allies of Milan at Marignano, September 13 and 14, thus breaking the prestige of the Swiss infantry; he gains possession of Lombardy. Early in the next year he establishes the Perpetual Peace with the Swiss and makes a **concordat with Pope Leo X.** From this time Switzerland is a recruiting ground for the French army.

1516. **Sir Thomas More's** *Utopia,* an account of an imaginary Commonwealth, is published.

New Testament in Greek published by **Erasmus.**

1517. **Leo X** authorizes preaching of **indulgences** for the benefit of St. Peter's Church in Rome. In October, **Martin Luther posts his 95 theses at** Wittenberg, and the **Reformation begins in Germany.**

1518. **Zwingli** begins the **Swiss Reformation.**

1519. On the death of Maximilian of Germany, Charles I of Spain, his grandson, who is also the grandson of Ferdinand and Isabella, is elected Emperor as **Charles V;** Germany, Spain, the Netherlands, the Sicilies, and Sardinia are thus joined under one sovereignty.

Fernando **Magellan,** a Portuguese, makes a voyage for Spain through the straits separating Tierra del Fuego from Patagonia; two years later he lands on the Ladrones and reaches the Philippines (March, 1521), where he is killed; one of his ships, the *Victoria,* completes **first circumnavigation of globe** (1522). See ship, *Table.*

1520. Francis I of France entertains Henry VIII of England at a meeting on the **Field of the Cloth of Gold,** near Guines.

V. WORLD WAR PERIOD: 1914 TO 1919*

Preliminaries [1912–1914] of the World War

The **causes of the great European conflict** which broke out in 1914 and lasted till 1918 go back to the destruction of the Roman Empire in Central Europe, and of the Greek Empire in eastern Europe and Asia. The immediate occasion for this war was a conflict of races and nationalities in Central Europe, culminating in the local Balkan wars of 1912 and 1913, one result of which was a rearrangement of the small Balkan states.

AUSTRIA-HUNGARY AND SERBIA

Austria-Hungary, in order to exclude Serbia from access to the sea, brought about the establishment of an Albanian Kingdom, which filled the Serbs with resentment. On the other hand the Austrians were much chagrined by the Serbian victories over Turkey and Bulgaria, which enabled Serbia to double her territory and population by the treaty of Bucharest. But the root of the Austro-Serbian quarrel was the Serbian desire to unite in one independent state the various branches of the Yugoslav race, Croats, Slovenes, and other groups, some millions of whom were subjects of Austria-Hungary. To this end, revolutionary secret societies were formed and an active propaganda was initiated, not only in Serbia but also in the Austro-Hungarian provinces, where the oppressive conditions of Austro-Hungarian rule made the population readily susceptible to agitation. Austria-Hungary regarded the Serbian ambition and tactics as dangerous to her integrity, and had been watching for an opportunity to have a reckoning with the Serbian nation. Serbia, for her part, in the event of an Austro-Hungarian attack upon her, hoped for the assistance of Russia.

On **June 28, 1914**, the **Archduke Francis Ferdinand**, the heir to the throne of the Austro-Hungarian monarchy, **was assassinated** in Sarajevo, the capital of Bosnia. Although the assassins were Austro-Hungarian subjects and natives of Bosnia, they were Serbians by race. Since the conspirators had secured their arms in Belgrade, the Serbian capital, the Austro-Hungarian government declared that the act was the result of Serbian propaganda and held the Serbian government morally responsible.

Therefore, on July 23 **Austria-Hungary presented to Serbia an ultimatum** containing demands of such a character as had rarely been laid upon an independent state. The Pan-Serbian propaganda must be suppressed; all anti-Austrian propaganda, whether in newspapers, textbooks or schools, must cease; officers in the government and army whose names the Austro-Hungarian government might submit must be removed; Serbia must accept Austro-Hungarian aid in the investigation of the murder. Finally, Serbia was required to accept the demands within forty-eight hours. It was believed at the time, and subsequent revelations leave no doubt as to the truth of this belief, that the ultimatum was so framed in order to precipitate war.

On July 25, 1914, Serbia practically accepted all the demands save the one concerning an investigation of the outbreak, which she offered to arbitrate. This series of concessions did not satisfy **Austria-Hungary**, and on **July 28** that state **declared war against Serbia.**

RUSSIA

This Balkan conflict speedily developed into a European war through the intervention of other great European powers, particularly Russia. Russia was unwilling to see Serbia crushed by Austria, partly because Russia had always posed as the protector of the Slav peoples of the Balkans, partly because the maintenance of Serbia was an important factor in her rivalry with the Teutonic powers throughout the Near East.

The Russian government had tried, both by direct demand on Austria-Hungary and through appeal to Germany, to secure some modification of the ultimatum; but in vain. It accordingly replied to the Austro-Hungarian declaration of war against Serbia by ordering the mobilization of the southern military districts along the Austro-Hungarian frontier (July 29), hoping that this step would induce Austria-Hungary to negotiate. This concession Austria-Hungary refused; moreover, the Russian general staff regarded this partial and territorially limited mobilization as both impracticable and dangerous.

The **Czar** was therefore persuaded to **order a general mobilization (July 30)**, even at the risk of precipitating a European war — a danger which he sought to minimize by declaring that the Russian troops would not cross the frontier so long as negotiations continued. The Russian government refused to accept the assurances of Austria-Hungary that she did not covet Serbian territory or intend to destroy the independence of that little state. Post-war revelations have justified the Russian suspicions, for it is now known that Austria-Hungary intended to partition Serbia for the territorial enlargement of the neighboring countries of Bulgaria and Albania; and that plans were under consideration for deposing the Serbian king and bringing the country under the military and economic control of Austria-Hungary.

GERMANY

The **Russian action** in turn **led to German intervention.** From the point of view of Germany, she and her ally Austria-Hungary were in constant danger from the Pan-Slavist ambitions of Russia, which seemed to threaten her own *Kultur*. Germany contended that she was being surrounded by an iron ring — on the east, by Russia and her Balkan allies; on the west by France, the ally of Russia, and Great Britain. Another element in the controversy which by this time was raging was a consciousness of her material success and a pride in her efficient and scientific way of life. Hence, she demanded a position equal to what she considered her due, esp. a more important position as a colonial power — "a place in the sun"; for her colonial empire was small compared with that of Great Britain or France, and her overseas possessions were less valuable and desirable than those of her rivals. The teachings of her philosophers emphasized that the basis of great states was might; and certain German writers argued that war was the proper means for the expansion of power and culture. For some years, too, the growth of the Socialist party was considered a menace to the military regime in Germany; and the view prevailed in some circles that this rising political power could be repressed by a successful war. The General Staff, which was the center of German military power, for its part considered a war with Russia inevitable and believed that the longer it was delayed, the more favorable would be the military situation for Russia and her allies. The German government was also much alarmed by the disintegrating forces at work within the Austro-Hungarian monarchy, the effects of which might, however, so it was hoped, be checked if the Austro-Hungarian government adopted a vigorous foreign policy.

German and Austro-Hungarian consultations. Before launching her ultimatum, **Austria-Hungary consulted Germany,** making clear that she proposed to go to war with Serbia. The German government sanctioned this program and promised support in case Russia interfered. When the ultimatum was issued, Germany accordingly gave scant encouragement to proposals of mediation and urged Austria-Hungary to declare war promptly in order to avoid unwelcome suggestions. But when it began to seem likely that Great Britain would be drawn into a general war, the German attitude changed somewhat. Austria-Hungary was advised to accept a British proposal that she should negotiate with the Powers after occupying Belgrade, the Serbian capital; but the German pressure on Austria-Hungary was relaxed at the critical moment, probably because the military party in Berlin was anxious for war; and Austria-Hungary declined the British suggestion.

German declaration of war upon Russia. At this moment (July 31), the news of the Russian mobilization was received in Berlin. Contending that "mobilization meant war," **Germany demanded** that **Russia cease mobilizing,** and when Russia refused, **declared war (August 1)**, in order not to lose the advantage of her own speedier mobilization. Whatever military advantage was gained was offset politically, for Germany was placed in the position of aggressor in the eyes of France and Great Britain.

FRANCE, GREAT BRITAIN, BELGIUM, ITALY, AND THE BALKAN POWERS

France supported her ally, **Russia,** throughout the crisis, but advised caution in the matter of military preparation. In French eyes, there was no alternative to a military settlement of the contest; otherwise the alliance would become valueless to Russia, and France would be left isolated before a triumphant Germany. To the German inquiry about her intentions, however, France replied enigmatically that she would consult her interests (August 1). After the German declaration of war against Russia, France was bound, by her treaty with Russia, to take similar action against Germany; but not wishing to appear in the role of aggressor, she left the initiative to **Germany,** which finally **issued a declaration of war on France (August 3).**

Great Britain, which was not bound by treaty to France and Russia, endeavored to secure an extension of the time limit of the Austro-Hungarian ultimatum, urged that the Serbian reply be taken as a basis of negotiation, proposed a conference in London of the four Powers most directly interested, and finally suggested that Austria-Hungary should content herself with the occupation of Belgrade while the Powers negotiated a settlement with Serbia. All of these proposals were rejected by Austria-Hungary or Germany.

The British cabinet was sharply divided in opinion as to the course to follow: intervention or neutrality. But the prime minister, Mr. Asquith, and the foreign secretary, Sir Edward Grey, were agreed that: (1) Germany must not be allowed to crush France; (2) Because the French fleet had been concentrated in the Mediterranean by arrangement with the British admiralty, a moral obligation existed for Great Britain to defend the northern coasts of France against a German attack. Accordingly on August 2, a promise was given to protect the northern coast of France, subject to the approval of Parliament, which was secured the following day.

Meanwhile the **question of Belgian neutrality** in the contest arose between France and Germany. France immediately replied that she would respect the neutrality of Belgium if Germany did so; the German answer was evasive in form and was soon followed by an ultimatum to Belgium requiring that country to allow the passage of the German army to the French frontier or take the consequences. The refusal of Belgium and the actual **invasion of Belgian territory by the German armies (August 3)** caused the wavering British cabinet and till then uncertain public opinion in England to turn sharply and immediately against Germany. On **August 4 Great Britain** addressed an ultimatum to Germany demanding that the neutrality of Belgium be respected, and on the refusal of the German government, **declared war** at midnight.

Italy, the other member of the Triple Alliance, **issued a declaration of neutrality,** on the ground that she had not been consulted by her allies, as required by the treaty of alliance, in the steps which led to the war and that the war was not one of defense against aggression (August 3). Likewise, **Rumania,** which since 1883 had been the ally of the Central Powers, **assumed** an attitude of **neutrality.** The little kingdom of **Montenegro** promptly **joined Serbia. Bulgaria, Greece, and Turkey proclaimed** their **neutrality,** although all were ultimately involved in the war. Indeed Turkey signed a secret alliance with Germany on August 2.

ATTITUDE OF THE UNITED STATES AND JAPAN

The government of the United States offered its good offices, which were politely declined by all the belligerents. On August 15 Japan, the ally of Great Britain, presented an ultimatum to Germany requiring her to withdraw her fleet from Far Eastern waters and to surrender the leased territory of Kiaochow (Shantung) to Japan. The German government made no answer, and on **August 23, Japan declared war on Germany.**

In 1914 each government sought to convince its own people and neutrals that it was not responsible for the great catastrophe, and the effort was generally successful. Germany's actions, however, soon alienated the sympathy of a large part of the neutral world. The admission of the German chancellor that the violation of Belgian neutrality which had been granted by a treaty of 1831 signed by Germany was a "wrong," and his assertion that "just for a word — neutrality — just for a scrap of paper Great Britain was going to make war on a kindred nation" were interpreted as a cynical disregard of international law and the rights of small nations. The heroic resistance of the Belgian army to the invasion of their territory, the sacking and burning of towns and villages along the route of the German advance, especially the destruction of Louvain, and the adoption of a systematic policy of terrorization carried on in the hope of breaking the Belgian spirit, won the sympathy of the world for Belgium and gained for Germany an opprobrium outside the contending participants in the war which proved a serious disadvantage throughout the war.

Chronology

GENERAL AND DIPLOMATIC

[Other events pertaining to the war, of interest especially with reference to particular nations, will be found in the histories and chronologies of the nations involved.]

1914. *June 28.* Archduke **Francis Ferdinand,** heir to Austrian throne, and wife **assassinated** at Sarajevo, Bosnia, by Bosnian Serbs. Austria holds Serbia morally responsible.

July 5. The German Emperor, William II, receives a letter from the Emperor Francis Joseph and a memorandum from Berchtold, the Austro-Hungarian foreign minister. These documents outline a plan for the isolation and diminution of Serbia by means of an alliance with Bulgaria and pressure on Rumania, and declare that a friendly settlement with Serbia is no longer to be thought of; the Austro-Hungarian ambassador explains

* In Sections V and VI the spelling of the names of places is generally that in common use at the time; the later preferred spelling is in parentheses.

1919 (*continued*).
cession to British Indian opinion, partly because the Allies did not know what else to do with the city. The Straits of the Bosporus and the Dardanelles were, however, declared open at all times and placed under international control. Syria, Palestine, Mesopotamia, and Arabia were detached from Turkey, the first three to be set up as mandatory areas under the League of Nations. Armenia was declared an independent state, and Kurdistan was promised autonomy; Greece was to receive the district around Smyrna. Turkey was to consist of what was left of the former holdings in Asia Minor. In addition, drastic limitations were included for the control of the Turkish government and of the economic life of the state. **This treaty,** signed by the government at Constantinople, was repudiated by the revolutionary government which had established itself at Angora; it **was never ratified,** and was eventually, as a result of the Greco-Turkish war of 1920–22, **replaced** by the **Treaty of Lausanne** (1923).

iv. Unsettled Problems: 1919 —. Throughout eastern and southeastern Europe, the lines of demarcation between the various races and peoples are seldom clear-cut or distinct, so that however the political frontiers are drawn, it is almost impossible to avoid placing some race groups under alien rule. The number of such racial minorities had been very large before the war; the result of the war was in many cases to reduce to the position of minorities those who had enjoyed hitherto political, economic and social ascendancy, and the new masters had many scores to pay off. Accordingly, the **Allied powers compelled** Poland, Czechoslovakia, Rumania, Yugoslavia and Greece to accept **"minorities treaties,"** in which the civil, political and religious rights of the minorities were solemnly recognized, and the protection of these rights was vested in the League of Nations. The "Succession States" protested vainly against what they considered infringements of their national sovereignty, all the more so because the Allied powers refused to assume similar obligations and limitations for themselves.

Two questions completely **baffled the** Peace **Conference.** The first was the disposition of **Fiume.** This city, with a small majority of Italians, lay within territory occupied from time immemorial by Slavs and claimed by the new Serb-Croat-Slovene state (Yugoslavia). **Italy demanded Fiume,** but the Peace Conference, acting upon the suggestion of President Wilson, refused to accede to this demand. It was seized by an unauthorized force of Italian troops, and held for many months. The question was settled by direct negotiations between Italy and Yugoslavia, who agreed, by the Treaty of Rapallo, November 12, 1920, that Fiume should become an independent state. A later arrangement provided for the annexation of Fiume to Italy, in return for which part of the harbor was assigned to Yugoslavia.

The second problem which defied solution was **the question of Russia.** Not only had the empire disintegrated, and certain portions, such as Finland and Poland, been recognized as independent states by the Allies, but the Russian government had fallen into the hands of the Bolsheviki with whom no power was willing to treat. France, England, the United States, and Japan still had troops in her territory and were at war with the Bolshevist government, especially on the Pacific Coast where American troops had occupied Vladivostok. Various proposals were made looking to the settlement of this question but no solution was reached. In the end, the Allied powers, themselves refusing to recognize the Bolshevist government, left it to the various states which had been established along the western border of the old empire to make their own terms with Soviet Russia.

The work of the Peace Conference has for ten years been much criticized on the ground that it effected the "Balkanization" of Europe. That is to say, it set up a large number of small states whose economic foundations were precarious; and it disturbed the channels of commerce which had been developed in prewar days. The criticism is hardly justified. Practically all of these states had established or re-established themselves by the time the Peace Conference met. The task of the conference was to determine the frontiers between the nations. The frontiers drawn were not perfect and could certainly be improved upon at certain points. But the hopelessly confusing mixture of peoples makes perfect frontiers out of the question. For all the imperfections of detail, **the new map of Europe,** based on a frank recognition of the principle of nationality, is a **vast improvement on that of 1914.** An important result is that the number of racial minorities has been greatly reduced. The economic difficulties of post-war Europe have arisen not so much from the new frontiers as from the spirit of nationalism which has led nearly every state to surround itself with high and ever higher tariff walls. From the political point of view, the problem of the frontiers is seemingly insoluble. Certainly, between the wish of the defeated powers to modify the territorial settlement of 1919–20 and the determination of the victors to retain what they have secured, there is no obvious compromise, and hence no prospect of enduring peace.

v. Other Readjustments: 1920–1922. Although, in general, the treaties of peace determined the new frontiers **plebiscites were provided for in several instances,** and these were carried out in 1920–1921. In the case of the southern boundary of **East Prussia,** the vote was so overwhelmingly in favor of Germany, that the claims of Poland were not recognized by the Allies and the old boundary was not changed. In **Schleswig** the vote followed closely the line of racial cleavage, and the province was divided between Denmark and Germany. In **Klagenfurt,** contested between Austria and Yugoslavia, economic interest apparently prevailed over racial sympathies, for Austria got the larger vote and was allowed to keep the entire territory. Hungary tried to resist the transfer of **Burgenland** to Austria, and irregular troops succeeded in seizing the town of Ödenburg (Sopron); a plebiscite was held late in 1921 which gave a vote in favor of Hungary, and she was permitted to keep the town.

The Silesian question was not so easily settled. By the terms of the treaty, the Supreme Council was to divide Upper Silesia on the basis of a plebiscite. When this resulted in an overwhelming vote in favor of Germany, irregular Polish troops occupied the districts which had given a majority in favor of Poland. This brought about a collision with German irregulars. France espoused the side of Poland, while England who was anxious to restore prosperity in Germany, sought to retain the main industrial districts for Germany. Through the mediation of the League of Nations a compromise was finally reached by which Germany was deprived of some of the richest mineral districts. A convention between Germany and Poland (1922) provided for maintaining the economic unity of the industrial region for a period of fifteen years.

In the Near East, the Sèvres Treaty (see Turkey, 1920, May 11) proved unenforceable. Although consented to and signed by the Turkish government, it was not observed by the Turkish Nationalists, who fought with varying success against the Greeks. Unfortunately for the Greeks, the Allies did not maintain a united front. In October, 1921, France, by a secret agreement, consented to withdraw from Cilicia in return for economic concessions (see Turkey, 1921, Oct. 22) and in March, 1922, Italy, likewise secretly, pledged herself to support the Turkish demand for the restitution of Thrace and Smyrna, and withdrew her troops from Turkish territory in return for economic concessions.

Thus Greece was left to bear the brunt of the struggle, with such moral support as she could get from England. In the final campaign, the **Greeks** were at first successful, but their **line** was finally **broken** and they were driven back to Smyrna, which had to be evacuated and was then burned by the Turks. War was narrowly avoided between the victorious Turks and the Allied garrisons at the Straits and Constantinople, but an **armistice** was **signed** on October 11, 1922.

Chronology

THE PEACE CONFERENCE: 1919

NEGOTIATIONS AND TREATIES, 1919

[For international events involving new or other minor states, see also these states by name; especially, Latvia; Estonia; Lithuania; Czechoslovakia; Finland; Hungary; Yugoslavia; Iraq; Poland; Syria.]

Jan. 18. **Peace Conference** (of those on Allied side of the war only) opens at Paris. Twenty-seven states represented, including Poland, Yugoslavia (instead of Serbia and Montenegro) and Czechoslovakia. China, Japan, and Siam represent the Far East; Hejaz, the Near East; Liberia, Africa. 11 Latin-American states send delegates. Four British dominions and India represented in British delegation. Clemenceau, French premier, elected president. United States, British Empire, France, Italy and Japan, as "principal powers," form Council of Ten (two representatives each) and control Conference.

Jan. 22. Proposal adopted that three representatives of each Russian party should meet Allied representatives at Prinkipo Island, in Sea of Marmara, on Feb. 15 in order to come to some arrangement about Russia. Rejected by anti-Soviet parties.

Jan. 25. Second plenary session: small powers protest against virtual exclusion from deliberations and are rebuffed by Clemenceau. Appointment of various commissions to prepare the peace treaties.

Feb. 8. **Supreme Economic Council established.**

Feb. 14. Third plenary session: **adoption of Covenant of the League of Nations.** Wilson departs for U. S.

Feb. 16. Revised armistice with Germany signed; line of demarcation drawn between Germans and Poles, the latter remaining in occupation of Posen.

Feb. 19. Clemenceau wounded by would-be assassin.

End of Feb. **Reparation question develops** in three plans: (1) British theory; Central Powers to pay whole cost of war, including expenses of Allies. (2) French theory; same, except that bills for destruction are to be settled first. (3) American theory; only reparation for wanton damage contrary to rules of war according to pre-Armistice agreement. Estimates of German capacity to pay vary from 10 to 120 billions of dollars. United States decides to ask for no reparation beyond that realized from German property and ships sequestered in U. S. territory.

March 14. Wilson returns to Paris.

March 15. Wilson announces that "the establishment of a League of Nations should be made an integral part of the treaty of peace."

March 17. Military, naval and air terms for Germany fixed.

March 19. Hungarian armistice line revised to advantage of Rumania. This causes Bolshevist revolution in Hungary.

March 25. Council of Ten, or Supreme Council, gives way to **Council of Four,** composed of Wilson, Lloyd George, Clemenceau, and Orlando, as having active control of negotiations. Memorandum of Lloyd George urging a moderate peace.

March 26. **Austrian fleet** finally **surrendered** at Venice according to armistice, being meanwhile in Yugoslav possession.

April 7. Wilson summons the *George Washington.*

April 8. Telegram from 370 members of House of Commons to Lloyd George demanding that he keep his election promises of a "strong" peace.

April 10. German National Assembly demands peace based on Wilson's "fourteen points."

April 11. Fourth plenary session: **International Labor Committee** makes final **report** to conference; later embodied in treaty; provisions for an international labor conference to meet annually; international labor officer at seat of League; labor principles enunciated, including denial of labor as property, collective bargaining, eight-hour day, one day's rest in seven, wages adequate to reasonable standard of life, no child labor, equal labor rights of women.

April 24. Wilson issues **manifesto on Fiume.** Italian delegation leaves Paris.

April 28. Fifth plenary session. Adoption of revised and clarified **League of Nations** at a plenary session of conference. Provision for withdrawal after two years' notice; unanimity of Council; disarmament to be approved by governments before put in force; removal of domestic questions (immigration, etc.) from jurisdiction of League; safeguard for national policies such as Monroe Doctrine; no nation made a mandatory without its consent; any country dissenting from an amendment to League ceases thereby to be a member. All nations not represented at conference asked to join League, except Central Powers, Russia, Mexico, Costa Rica, and Dominican Republic.

April 30. Shantung question settled in favor of Japan.

May 6. Italian delegates return.

May 7. Mandates for German colonies given (see Germany, former African colonies). Great Britain to have mandate over Nauru Island, New Zealand over Samoa, Australia over Pacific Islands south of equator, Japan north of equator. **Peace treaty delivered to German delegates.**

May 11. **Germany protests** against the treaty as contrary to "fourteen points."

May 30. German counterproposals.

June 2. **Austrian treaty** handed to delegates.

June 16. **Allies** reply to German proposals: some concessions are made, but **treaty** as whole **is maintained.**

June 21. German naval officers **sink their fleet** interned **at Scapa Flow.** Germans at Berlin burn French battle flags captured in war of 1870, return of which treaty demands.

New German cabinet formed, which agrees to sign treaty, without recognizing responsibility for war and without agreeing to deliver up persons accused of violating laws of war.

June 22. Council of Four peremptorily refuses to accept any qualification, and warns of complete blockade and invasion.

June 28. **Treaty of Versailles,** German peace treaty, **signed. Cessions:** Alsace-Lorraine to France, certain small sections to Belgium (see Belgium) and to Czechoslovakia, Posen and West Prussia to Poland, and Memel detached. **Plebiscites** to determine future of Upper Silesia (see Poland), Schleswig-Holstein (see Denmark), and southern half of East Prussia (see Poland). **Danzig** with small territory south and east becomes a free city and port for Poland (see Poland). **Saar Basin** coal mines handed over to France; League to govern, and after 15 years plebiscite to decide. **Luxemburg** detached from Zollverein and to choose commercial union between Belgium and France. **Fortification** forbidden on Helgoland, entrance to the Baltic, west of Rhine, or within thirty miles of river on eastern side. German **colonies** renounced. **Rights and privileges** held against any of Allied nations (including China, Siam, Liberia, Morocco, Egypt) **renounced;** rights in **Shantung** turned over to

EUROPE
1914
Scale of Statute Miles
Kilometers
Comparative Area.
PENNSYLVANIA
44,832 Square Miles.
Capitals of Countries:
Railroads:
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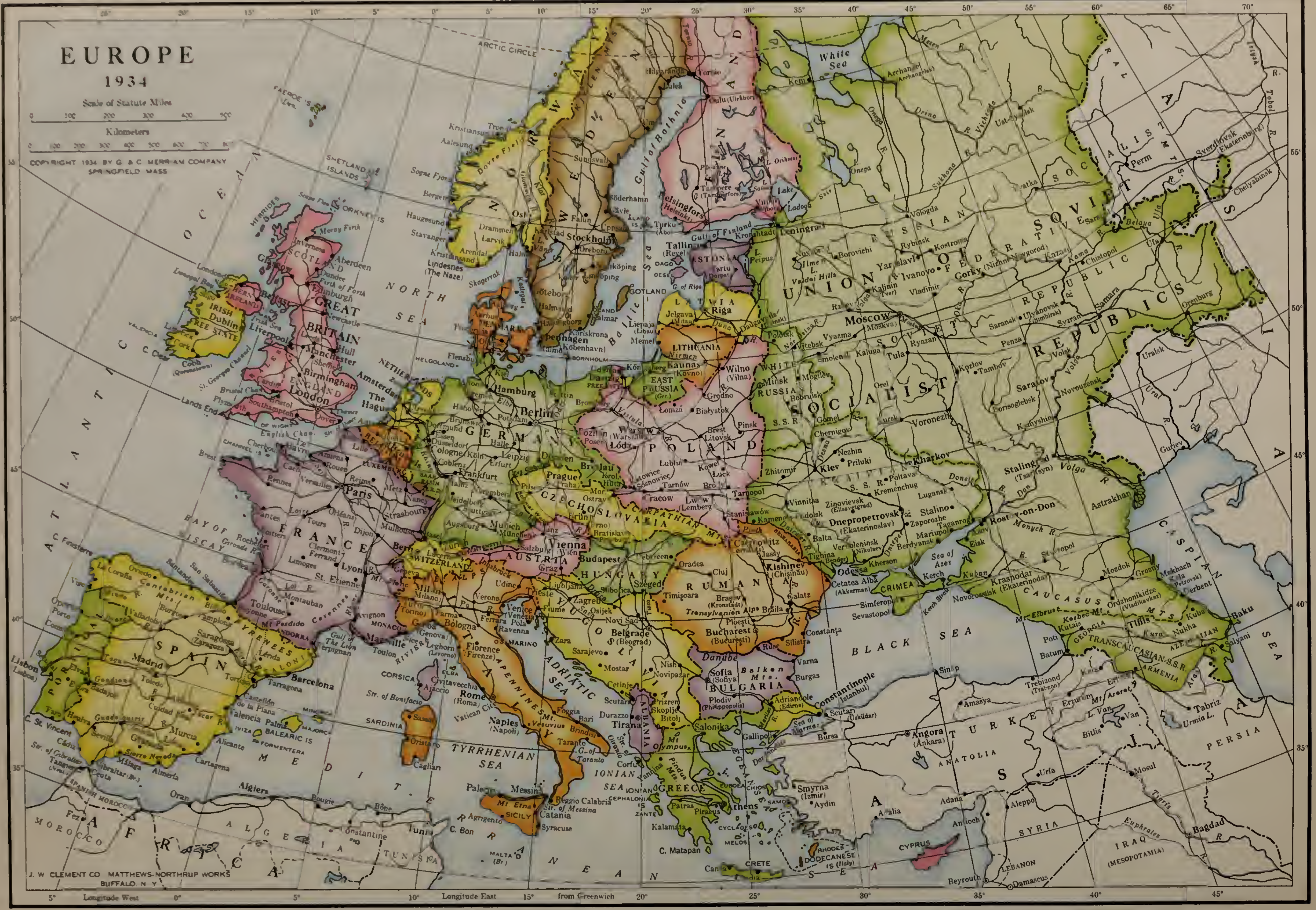
J. W. CLEMENT CO., BUFFALO, N.Y.
Longitude West
Longitude East from Greenwich
ATLANTIC OCEAN
NORTH SEA
BALTIC SEA
BLACK SEA
CASPIAN SEA
MEDITERRANEAN SEA
BAY OF BISCAY
BRITISH ISLES
GREAT BRITAIN
FRANCE
SPAIN
PORTUGAL
GERMANY
AUSTRIA HUNGARY
RUSSIA
ITALY
SWITZERLAND
SERBIA
BULGARIA
ROUMANIA
TURKEY
ASIA MINOR
AFRICA
ASIA
PERSIA
MESOPOTAMIA
SYRIA


EUROPE
1934
Scale of Statute Miles
Kilometers
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J. W. CLEMENT CO. MATTHEWS-NORTHRUP WORKS
BUFFALO, N. Y.
Longitude West
Longitude East
from Greenwich
ARCTIC CIRCLE
ATLANTIC OCEAN
NORTH SEA
BALTIC SEA
BLACK SEA
CASPIAN SEA
MEDITERRANEAN
TYRRHENIAN SEA
ADRIATIC SEA
IONIAN SEA
AEGEAN SEA
BAY OF BISCAY
White Sea
UNION OF SOVIET SOCIALIST REPUBLICS
RUSSIAN SOVIET FEDERATED SOCIALIST REPUBLIC
GREAT BRITAIN
IRISH FREE STATE
NORWAY
SWEDEN
FINLAND
FRANCE
SPAIN
GERMANY
POLAND
CZECHOSLOVAKIA
AUSTRIA
HUNGARY
RUMANIA
YUGOSLAVIA
BULGARIA
ALBANIA
GREECE
ITALY
SWITZERLAND
LITHUANIA
LATVIA
ESTONIA
EAST PRUSSIA
TURKEY
ASIA
AFRICA
ALGERIA
TUNISIA
MOROCCO
PERSIA
SYRIA
IRAQ (MESOPOTAMIA)
CYPRUS
CRIMEA
CAUCASUS
TRANSCAUCASIAN S.S.R.
GEORGIA
ARMENIA
ANATOLIA
CORSICA
SARDINIA
SICILY
CRETE
DODECANESE IS (Italy)
BALEARIC IS
SHETLAND ISLANDS
ORKNEY IS
HEBRIDES
FAEROE IS.
GOTLAND
London
Paris
Berlin
Moscow
Rome
Madrid
Vienna
Warsaw
Budapest
Bucharest
Belgrade
Sofia
Athens
Constantinople
Angora (Ankara)
Stockholm
Oslo
Helsingfors (Helsinki)
Leningrad
Kiev
Kharkov
Lisbon
Barcelona
Prague
Dublin

1919 (*continued*).

Japan. **Army** reduced to 100,000; compulsory military service forbidden; limitation on ordnance and military equipment specified. **Navy** not to have more than 36 surface vessels of limited displacement; no submarines; further surrenders prescribed. **No air force**; all existing material to be surrendered. **Ex-emperor arraigned** for crimes against civilization; Netherlands to be asked to surrender him for trial by Allies. Germany agrees to **deliver** for military trial **persons accused of violating laws of war** and furnish information respecting their acts. **Aggression** of Germany and her allies acknowledged as basis for reparation; such **reparation** to be made for loss and damages as Reparations Commission shall determine. **Restitution** in kind, including certain historical and artistic articles. Cost of **armies of occupation** to be charged to Germany. Occupation to continue with gradual withdrawal for 15 years, or longer if treaty is not carried out. Various rivers internationalized; Kiel Canal open to merchant and war vessels of all nations at peace with Germany. Other economic provisions. Treaty also embodies the League and labor provisions.

Franco-British-American alliance treaty **signed**. Subject to ratification by the U. S. Senate. United States and Great Britain agree, subject to approval of League, to go immediately to aid of France in case of unprovoked aggression by Germany. Not ratified by United States or Great Britain. **Poland signs treaty** with principal powers **guaranteeing rights of racial minorities**. Similar treaties required of other new Eastern nations.

July 9. **Germany ratifies treaty.**

July 10. Wilson presents treaty to U. S. Senate (see UNITED STATES for further history).

July 11. **Blockade** except as to Hungary and Soviet Russia formally **raised**.

August. Rumanians in Hungary (see HUNGARY).

Aug. 8. Belgium ratifies treaty.

Aug. 9. Anglo-Persian agreement (see PERSIA).

Sept. 10. **Treaty of Saint-Germain-en-Laye**, Austrian peace treaty, signed (see AUSTRIA, CZECHOSLOVAKIA, YUGOSLAVIA). Czechoslovakia and Yugoslavia sign minorities treaties with the principal powers.

Sept. 16. Anglo-French **agreement on Syria** (see SYRIA).

Sept. 19. Bulgarian peace treaty handed to her delegates.

Oct. 10. British ratification sent to Paris. Was passed July 31 but held up to await approval of dominions.

Oct. 13. French ratification completed.

Oct. 25. Austria ratifies treaty of Saint-Germain.

Oct. 30. Japan ratifies.

Nov. 6. Supreme Council calls Germany's attention to various matters in which armistice has not been carried out: failure to deliver equipment or to withdraw troops; destruction of vessels at Scapa Flow. Protocol for compensation framed; 400,000 tons of tugs, floating docks, and other maritime equipment to offset sinkings at Scapa Flow. Germany does not sign until January 10, 1920, when amount reduced to 275,000 tons.

Nov. 27. **Treaty of Neuilly-sur-Seine**, Bulgarian peace treaty, **signed** (see BULGARIA).

Dec. 9. Rumania signs minorities treaty.

American delegates leave Peace Conference.

STATISTICS OF THE WORLD WAR

ESTIMATED MONEY COST OF THE WAR

THESE figures are necessarily subject to various modifications: in the main the cost is that of the increase during the period of the war over the normal peace expenditures; but the cost of the war does not end with the cessation of hostilities, while it includes advances to Allies in the case of United States ($9,598,857,645), Great Britain ($8,695,000,000), France ($1,547,200,000), and Germany ($2,375,000,000). A portion of these will be recovered, and reparations by Central Powers will increase their ultimate cost and diminish that of the Allies.

ALLIES

Great Britain	$44,029,011,868
Canada	1,665,576,032
Australia	1,423,208,040
India	601,279,000
New Zealand	378,750,000
South Africa	300,000,000
United States	32,080,266,968
France	25,812,782,800
Russia	22,593,950,000
Italy	12,413,998,000
Rumania	1,600,000,000
Belgium	1,154,467,914 [1]
Serbia	399,400,000
Greece	270,000,000
Japan	40,000,000
Other Allies	500,000,000
Provisional Total	$145,262,690,62 [2]

CENTRAL POWERS

Germany	$40,150,000,000
Austria-Hungary	20,622,960,600
Turkey	1,430,000,000
Bulgaria	815,200,000
Provisional Total	$63,018,160,600 [2]

AMERICAN WAR DEBT AS OF JUNE 30, 1919

First Liberty Loan	$1,984,796,500
Second Liberty Loan	3,566,456,600
Third Liberty Loan	3,958,552,700
Fourth Liberty Loan	6,794,504,587
Fifth Liberty Loan	3,467,844,972
War Savings and Thrift Stamps	953,997,435
Certificates of Indebtedness	3,624,983,490
	$24,351,136,284

PRIVATE LOANS TO BELLIGERENT COUNTRIES

raised in the United States since the outbreak of the war and down to July 1, 1920. Short-time notes which were taken up during the war, mainly by substitution of longer term notes, not included.

	Amount
Great Britain:	
Anglo-French (½)	$250,000,000
United Kingdom	150,000,000
United Kingdom	143,587,000
United Kingdom	250,000,000
France:	
Anglo-French (½)	250,000,000
City of Paris	50,000,000
City of Bordeaux	15,000,000
City of Lyon	15,000,000
City of Marseille	15,000,000
Belgium	75,000,000
Germany	10,000,000
Russia	75,000,000
Italy	25,000,000
Canada	150,000,000
Provincial and municipal	119,424,366
Newfoundland	2,500,000
	$1,595,511,366

[1] Does not include fines and levies by Germany; with these, about $3,000,000,000.

[2] These totals are all subject to correction for the figures of individual countries. They do not include seizure and destruction of private and public property, which has been estimated at 30 billion dollars on land and 7 billions at sea.

DEBTS OF ALLIED COUNTRIES TO THE UNITED STATES, JAN 1, 1933[1]

Great Britain	$4,499,520,000
France	3,921,547,932
Italy	2,007,406,125
Belgium	406,555,000
Russia	327,583,071
Poland	215,289,915
Czechoslovakia	165,571,023
Rumania	63,860,560
Yugoslavia	61,625,000
Greece	32,183,000
Estonia	17,203,743
Finland	8,803,295
Latvia	7,085,454
Lithuania	6,383,612
	$11,740,617,730

NAMES OF BELLIGERENTS AND DATES OF ENTRY INTO THE WAR

CENTRAL POWERS

1. Austria-Hungary, July 28, 1914
2. Germany, August 1, 1914
3. Turkey, November 5, 1914
4. Bulgaria, October 14, 1915

ALLIES

1. Serbia, July 28, 1914
2. Russia, August 1, 1914
3. France, August 3, 1914
4. Belgium, August 4, 1914
5. Great Britain, August 4, 1914
6. Montenegro, August 8, 1914
7. Japan, August 23, 1914
8. Italy, May 23, 1915
9. Portugal, March 9, 1916
10. Rumania, August 27, 1916
11. Greece (provisional government), November 23, 1916
12. United States, April 6, 1917
13. Cuba, April 7, 1917
14. Panama, April 7, 1917
15. Siam, July 22, 1917
16. Liberia, August 4, 1917
17. China, August 14, 1917
18. Brazil, October 26, 1917
19. Guatemala, April 21, 1918
20. Nicaragua, May 6, 1918
21. Costa Rica, May 23, 1918
22. Haiti, July 15, 1918
23. Honduras, July 19, 1918

[1] From Table in New York *Times*, compiled from Treasury records.

COUNTRIES THAT SEVERED DIPLOMATIC INTERCOURSE WITH GERMANY WITHOUT DECLARING WAR

1. Bolivia, April 14, 1917
2. Peru, October 5, 1917
3. Uruguay, October 7, 1917
4. Ecuador, December 7, 1917

TOTAL COUNTRIES INVOLVED

Central Group	4
Allied Group	23
Partially engaged	4
	31

COST OF WAR IN MEN[1]

Allies	*Dead.*	*Wounded.*	*Prisoners and Missing.*
Russia	2,762,064	4,950,000	2,500,000
French Empire	1,427,800	3,044,000	453,500
British Empire	807,451	2,059,134	64,907
Serbia	707,343	350,000	100,000
Italy	507,160	962,196	1,359,000
Rumania	339,117	200,000	116,000
Belgium	267,000	140,000	10,000
United States	107,284 [2]	191,000 [2]	4,912 [2]
Greece	15,000	40,000	45,000
Portugal	4,000	17,000	200
Japan	300	907	3
Central Powers			
Germany	1,611,104	3,783,143	772,522
Austria-Hungary	911,000	3,000,000	443,000
Turkey	436,924	407,772	103,731
Bulgaria	101,224	1,152,399	10,825

[1] These estimates founded on *Direct and Indirect Costs of the Great World War* by E. L. Bogart. It is estimated that probably 50% of those listed as "prisoners and missing" are dead.

[2] Later official statement for the American Expeditionary Force gives only 77,118 deaths, 221,050 wounded, 4,432 prisoners.

VI. THE POSTWAR PERIOD: 1919 TO 1933

A. THE LEAGUE OF NATIONS: 1919–1933

I. Organization of the League of Nations: 1919. On November 11, 1918, the active military operations of the **World War** were **terminated** by the armistice. On January 18, 1919, the **Peace Conference** began its session at Paris.

The first section of the treaty which issued from that conference is entitled "**The Covenant of the League of Nations.**" By this Covenant, a new and wide-reaching international institution was established — a league — which was designed to cope with the disturbed and distracted condition of the world and to diminish the likelihood of future wars. In the formation of the governing body of the **League of Nations**, two principles were recognized. The first was the theoretical principle of international law that all independent states are equal and sovereign. The second principle was a recognition of the actual fact that the great powers, through their size, resources, and influence exercise a real control over international affairs. To reconcile these two divergent or contradictory principles was created the governing organ of the League, a bicameral body consisting of an Assembly and a Council. In the **Assembly of the League**, all the Allied and Associated Powers that are signatories to the Treaty of Versailles and such others as the League shall elect have equal voice. In the **Council of the League**, the five principal powers — Great Britain, France, Italy, Japan, and by the original Covenant, the United States — were permanent members, each having one vote. The Assembly, however, was given the duty of electing four states who should sit as members with the five principal powers. In 1922 this number was increased to six, in 1926 to nine, and in 1933 to ten. In the Assembly, each member state, although represented by not more than three representatives, is entitled to one vote. Thus, in the Assembly the theoretical equality of states is represented, while in the Council the influence of the larger states is recognized. For the decision of the great majority of questions, unanimity of the members represented at the meeting of both bodies is demanded. Hence any state can in most cases, by its single vote, check action on the part of the League.

The **purpose of the League of Nations** is first to render war less likely and peace more certain. To accomplish this, the member states of the League pledge themselves to respect and to preserve against external aggression the territorial integrity and existing independence of the member states of the League (Article X). Any threat of war is declared to be the concern of the whole League, and any member may call the attention of the League to such a threat and the League shall take such action as is deemed wise to safeguard the peace (Article XI). The members of the League agree to submit disputes likely to lead to rupture either to arbitration or to inquiry by the Council. Moreover, the Covenant provides for the establishment of a **Permanent Court of International Justice,** to which disputes of an international character may be submitted (Articles XII–XV). Should any member of the League resort to war in disregard of its covenants, it shall *ipso facto* be deemed to have committed an act of war against all the other members of the League, who undertake to subject the offending member to a commercial and financial blockade; and it shall be the duty of the Council to recommend what effective military measures are necessary (Article XVI).

In order to insure the maintenance of peace, the Council is directed to take into account the circumstances of each state, and to formulate plans for the **limitation of armaments,** which, if accepted by the states, shall not be exceeded without the concurrence of the Council (Article VIII). It is also provided that restrictions may be placed on the private manufacture of arms.

One of the most **interesting features of the Covenant** is the establishment of **mandates.** The surrendered colonies and territories of the enemy powers are not given outright to other states, but a system of mandataries is provided by which a state assumes the mandate for and the government of a colony or territory, not for its own benefit, but for the benefit of the colony or territory and acts under the direction of a committee or commission of the League (Article XXII). The mandates were determined, however, not by the League, but by the Supreme Council of the Allies, which assigned them as follows: Great Britain received the mandate for Iraq (Mesopotamia), Palestine, and parts of Togo and Cameroons; France, for Syria; Great Britain and Belgium, for German East Africa (British portion renamed Tanganyika Territory), Union of South Africa, for German South-West Africa, Australia, for the German possessions in the Pacific Ocean south of the equator, except Samoa; New Zealand, for Samoa; Japan, for the German islands north of the equator.

Article XVIII of the Covenant requires the **registration with the Secretariat of the League of every treaty or international engagement** entered into by any member of the League, and such engagements are not considered binding until so registered. By Article XIX the Assembly is empowered to "advise the reconsideration by members of the League of treaties which have become inapplicable and the reconsideration of international conditions whose continuance might endanger the peace of the world." Article XXI recognizes the validity of "regional understandings like the Monroe Doctrine" for securing the maintenance of peace.

In addition, under Article XXIII, the **League takes cognizance of conditions of labor,** the treatment of natives in colonies, the traffic in women and children, the **sale of opium** and other **dangerous drugs,** the **trade in arms,** maintenance of **freedom of communication and transit,** and **control of disease.**

The Council and the Assembly of the League meet at call; but the **permanent element** in the League **is the Secretariat,** with headquarters at Geneva. This consists of nonpolitical experts chosen from the member states. It receives the reports of the various commissions and committees, files information, and prepares the material for consideration by the members of the League. Sir Eric Drummond, of England, was chosen first secretary-general.

II. Problems confronting the Diplomats after the World War; and the Status of The League of Nations. Apart from the establishment of the League of Nations, the chief political result of the World War was the **division of the world into three categories of states:** (1) The victorious Allied and Associated Powers, who wished to preserve and exploit the fruits of victory; (2) The defeated powers, who in many respects were not treated as equals in the family of nations with their late enemies; and who protested by every means in their power against the treaties of peace imposed upon them; (3) The states neutral during the war, who were anxious not to become involved in the continuing disputes between the former belligerents. In a class by herself stood Russia, who was for many years treated as a pariah by most of the rest of the world, which resented the repudiation by the Soviet government of various international obligations, both political and financial, and feared the effect of Communist practice in Russia and Communist propaganda outside of Russia.

The framers of the peace treaties had expected the **League of Nations** to act as a shock-absorber for current political disputes, but its moral **authority,** prestige and power were greatly **weakened** by three circumstances: (1) The defeated states, even after they were admitted to membership, regarded the League as an instrument of the victors to preserve the new allocations of territory and authority. Their distrust was to some extent shared by the neutrals. (2) The Soviet government, which was not invited to join, from the beginning, treated the League with a certain contempt. (3) The abstention of the United States from these proceedings forced the League to act with great circumspection, lest some step proposed by it should be opposed by the United States.

Consequently, in spite of many creditable accomplishments, the **League** proved **unable to** exercise decisive **control over world politics.** The most important questions continued to be discussed and adjusted by direct negotiations between governments. Thus, although the problem of the reduction and limitation of armaments was entrusted to the League by the Covenant, the only progress made up to the end of 1933 had been achieved by negotiations between the naval powers (see Disarmament). In September 1931, the machinery and position of the League were put to the test when China appealed for its help to stop the action of Japan in Manchuria (see The League and the Far East). The result was a serious loss of prestige.

III. Activities of the League of Nations: 1919–1933. On the ratification of the Treaty of Versailles, January 10, 1920, the **League of Nations** automatically **came into existence.** Pending the first meeting of the Assembly, the Supreme Council of the Peace Conference elected as the four temporary members of the Council of the League representatives of Belgium, Brazil, Greece, and Spain. These, together with four (in the absence of the United States) of the five permanent members — the delegates from the British Empire, France, Italy, and Japan — promptly began to function.

The **first problem** which faced the Council was the **administration of the Saar Basin** in western Germany. The right to operate the rich coal mines of this region was given to France in reparation for the destruction of her coal mines by the Germans during the World War. The territory, however, was to remain under the sovereignty of the League of Nations for fifteen years, at the end of which period a plebiscite should be taken to determine whether the region shall become French or return to Germany. For the administration of the Saar Basin during this period the Council erected a commission with full power of government.

In like manner, the **Council appointed** a high **commissioner** for the Free City of **Danzig,** which is an international port giving to Poland an outlet on the Baltic Sea. The Council, through commissions which it appointed, also **settled** the **dispute between Finland and Sweden** over the Åland Islands, and attempted to settle the dispute between **Poland and Lithuania** over Vilna (Wilno). The Council, moreover, **prepared,** through a commission, a **plan for the Permanent Court of International Justice,** which has been accepted by the Assembly and ratified by the requisite number of states.

The **Assembly of the League** of Nations held fourteen regular and several special meetings. The **first,** extending from November 15 to December 18, 1920, was attended by representatives of forty-one nations. Paul Hymans of Belgium was elected president. At this meeting it was decided that the control of the permanent mandates be given to a commission of nonmandatory powers; and that the question of the blockade of a nation breaking the Covenant provisions should be left to each individual nation. At this meeting, also, the plan for the Permanent Court of International Justice was adopted. Two former enemy states, **Austria and Bulgaria,** were elected **members of the League,** as were also Albania, Costa Rica, Finland, and Luxemburg.

The second meeting of the Assembly took place September 5 to October 5, 1921. At this meeting, the members of the Permanent Court of International Justice were elected, among whom was **John Bassett Moore,** of the United States. The Silesian question was referred to the League Council; and important amendments to the Covenant were passed, by which the economic blockade against a state resorting to war in disregard of the Covenant provisions might be postponed in the case of any particular state, if the Council considered such postponement advisable. These were referred to the member states for ratification.

The **third assembly** met September 4 to September 30, 1922, under the presidency of Señor Augustín Edwards of Chile. **Hungary** was admitted as a **member** and reports from the commission on the reduction of armaments and the Mandate Commission were discussed. The number of nonpermanent members of the Council was increased by two and Brazil, Spain, Belgium, China, Sweden, and Uruguay were selected.

The most important work of the League in 1922 was the initiation through the Council of a plan for the financial rehabilitation of Austria.

The **fourth assembly** of the League **was held** at Geneva from September 3 to 29 inclusive, 1923, under the presidency of Dr. Cosme de la Torriente of Cuba. **Abyssinia** and the **Irish Free State** were elected **members** and Uruguay, Brazil, Belgium, Sweden, Czechoslovakia, and Spain as nonpermanent members of the Council. **The action of** Italy in bombarding and seizing Corfu **was a challenge** to the competency of the **League. The basis** for settlement was framed after debates **in the** Council and Assembly, was submitted to the Council of Ambassadors in Paris, and by them applied to the dispute. An important step in disarmament was taken by the adoption of the Treaty of Mutual Assistance which was submitted to the member states. The financial reconstruction of Hungary and numerous administrative questions were discussed and decided.

The **fifth assembly** of the League of Nations was held in Geneva from September 1 to October 2, 1924. Forty-nine of the fifty-four member states were present. M. Giuseppe Motta, of Switzerland, was elected president of the Assembly, and the **Dominican Republic** was admitted as a **member** of the League. This meeting of the Assembly was notable for the presence of the premiers of Great Britain and France, both of whom took active part in the early sessions of the Assembly, MacDonald urging compulsory arbitration, and Herriot security and guarantees. Since the reception of the Treaty of Mutual Assistance, adopted at the fourth assembly, had not been favorable, the fifth assembly gave special attention to a protocol drawn up according to the suggestions of General Bliss, Professor James T. Shotwell, and Mr. D. Hunter Miller, all Americans. As finally adopted, this **Protocol outlawed aggressive war,** and de-

in both Great Britain and France, the two powers on whom effective action in the last analysis depended, some elements sympathized strongly with Japan. The failure of the League undoubtedly diminished its prestige and contributed powerfully to the difficulty in reaching any agreement on the limitation and reduction of armaments.

MEMBERS OF THE LEAGUE

Abyssinia (Ethiopia)	Finland	Nicaragua
Albania	France	Norway
Argentina *	Germany †	Panama
Australia	Greece	Paraguay
Austria	Guatemala	Persia
Belgium	Haiti	Peru
Bolivia	Honduras *	Poland
British Empire	Hungary	Portugal
Bulgaria	India	Rumania
Canada	Iraq	Salvador, El
Chile	Irish Free State	Siam
China	Italy	South Africa
Colombia	Japan †	Spain
Cuba	Latvia	Sweden
Czechoslovakia	Liberia	Switzerland
Denmark	Lithuania	Turkey
Dominican Republic *	Luxemburg	Uruguay
Estonia	Mexico	Venezuela
	Netherlands	Yugoslavia
	New Zealand	

* Not represented at thirteenth Assembly, September, 1932. Brazil and Costa Rica were originally members but have withdrawn.

† During 1933, Germany and Japan resigned from the League of Nations, their withdrawals to take effect at the end of a two-year period as provided by the Covenant of the League.

C. DISARMAMENT

The crisis of July, 1914, the beginning of the World War, had clearly demonstrated that great armaments do not secure peace. It was also evident that a new **competition in armaments** would impose **an intolerable burden** on peoples already exhausted by the war. Consequently, by the Treaty of Versailles Germany was allowed an army of only 100,000 men, a small navy, and no military aircraft, "in order to render possible the initiation of a general limitation of the armaments of all nations." The Covenant of the League of Nations required the Council to "formulate plans" for the reduction of national armaments "to the lowest point consistent with national safety and the enforcement by common action of international obligations." As things have turned out, the League has concerned itself primarily with land armaments, while the negotiations concerning naval armaments have, because of the nonmembership of the United States in the League, been conducted directly by the principal naval powers.

i. Naval Armaments: To the Washington Conference. At the close of the war the American program of naval construction was still theoretically in force, and Great Britain, Japan, and the United States were apparently engaged in a race for naval supremacy. On May 25, 1921, the Senate adopted an amendment to the Naval Appropriation Bill, proposed by Senator Borah, authorizing the President to invite Great Britain and Japan to a conference to consider the possible limitation of armaments. Inasmuch as the limitation of armaments depended upon the relation of the powers in the Far East, and particularly in China, the scope of the conference was extended to include these questions, and France, Italy, China, Belgium, the Netherlands, and Portugal were invited to send delegates.

ii. Naval Armaments: The Washington Conference. The Conference was in session at Washington from November 12, 1921, to February 6, 1922, and, as a result, seven treaties and twelve important resolutions were adopted which were expected to put an end to the rivalry in armaments and to solve many of the difficulties in the Far East.

On December 13 a Four-Power Treaty and Declaration were signed which sufficiently adjusted the political difficulties in the Far East to make possible the signing of two treaties between the five naval powers dealing with naval armaments.

(1) The first **treaty, limiting naval armament,** which had as its basis an American proposal slightly modified, gave the United States 18 capital ships, Great Britain, 22, and Japan, 10, and allowed France and Italy 10 capital ships apiece. The United States and Great Britain were permitted 500,000 tons capital-ship replacement, and Japan 300,000. The ratios thus established are to hold good until 1936.

(2) A **Five-Power Treaty, restricting** the use of **submarines** to actual warfare **and** restricting the use of **noxious gases.**

(3) A **Four-Power Treaty** between the United States, the British Empire, France, and Japan, by which the contracting powers agree to respect each other's rights in their insular possessions in the **Pacific Ocean** and agree mutually to submit questions not settled by diplomacy to the other contracting powers. In case the rights of any of the contracting powers are threatened by any other power, the contracting powers shall communicate with one another. This treaty, to remain in force for ten years, **supersedes the Anglo-Japanese Alliance** (see Great Britain, 1905, Aug. 12).

(4) A Declaration between the United States, the British Empire, France, and Japan, that the **foregoing treaty shall apply to the mandated islands,** but that it shall not assume to be an assent on the part of the United States to such mandates.

(5) A Supplementary Treaty defining the term **"insular possessions"** in the Four-Power Treaty so that in its application to Japan it would apply only to Karafuto (the southern part of the island of Sakhalin), Formosa, the Pescadores, and the islands under the mandate of Japan.

(6) A **Nine-Power Treaty,** by which the powers at the conference agree to respect the sovereignty and independence and administrative and territorial **integrity of China,** to provide for Chinese development, to use their influences for the purpose of maintaining equal opportunity for commerce and industry of all nations, to refrain from taking advantage of conditions in China to seek special privileges. In connection with this treaty, it should be noticed that, on February 4, an agreement was reached between China and Japan by which the former German-leased territory of Kiaochow was restored to China. In addition, the **restoration of Shantung province** was completed by Great Britain's promise to release Weihaiwei, and agreements were made for the financing of the coal and iron mines and the ultimate restoration to China of the Shantung Railroad.

(7) A Treaty relating to the Chinese Customs Tariff, by which **China is allowed to increase her tariffs,** hitherto fixed by treaty.

iii. Naval Armaments: After the Washington Conference. By the Washington treaties Great Britain accepted the principle of "parity" with the United States, but no agreement was reached on the question of cruisers. To achieve parity in cruisers, the United States would have been compelled to embark on an enormous and expensive building program, which was not to the liking of Congress. The **American government** therefore **sought** a new **agreement with Great Britain for the limitation of cruisers,** and at the suggestion of President Coolidge, a **conference** was held **at Geneva** in 1927 between Great Britain, the United States, and Japan (France and Italy, who resented their treatment at the Washington conference, declining to attend). The **Geneva conference** ended in complete **failure,** as no compromise could be found between the American program of a small number of large cruisers and the British program of a large number of small cruisers. In consequence Anglo-American relations grew more strained than they had been for a generation.

In 1929, after Mr. Hoover had become president and the Labor party had returned to power in Great Britain, negotiations were resumed which culminated in the visit of the British prime minister, Mr. Ramsay MacDonald, to Washington and the acceptance of a "yardstick" for measuring naval armaments. A preliminary agreement having been reached, it was possible to convene a **conference in London** in January, 1930, which was attended by **Great Britain, the United States, Japan, France, and Italy.** After very difficult negotiations with the three latter powers, a **treaty** was **signed** on April 22, 1930.

The battleships authorized for replacement under the Washington treaty were not to be built before 1936, and the United States, Great Britain, and Japan agreed to "scrap" nine battleships. Aircraft carriers were redefined so as to include ships under 10,000 tons. The total tonnage of the three principal powers in cruisers, destroyers, and submarines was fixed, and Japan was granted parity in submarines with Great Britain and the United States. An elaborate compromise stipulated the tonnage of each power in large and small cruisers. Submarines were declared subject to the same rules of international law as surface vessels. Finally, a so-called "escalator" clause permitted each power to exceed the tonnage levels established if in its opinion new construction by other powers threatened its own security. The reason for this clause was that France rejected the claim of Italy to parity with herself, which caused both France and Italy to abstain from signing the clauses of the treaty limiting the construction of cruisers. France was ready to recognize the theoretical Italian claim to parity if Great Britain would underwrite a "Mediterranean Locarno"; this Great Britain was willing to do if the United States would agree to a consultative agreement for implementing the Kellogg Pact. The American delegation was favorable to this plan, but it was rejected by President Hoover.

The **London treaty** marks a real **advance** in the direction of reducing and limiting naval armaments; but the maintenance of the limits thus established depends upon France and Italy not proceeding to new naval construction on any large scale. In 1931 Great Britain and the United States succeeded in bringing about an agreement between France and Italy, but France was so alarmed by the Austro-German customs union, unfortunately announced at about the same time, and by the construction of a "pocket battleship" in Germany that she repudiated the Anglo-American proposals. France is satisfied with her present naval superiority over Italy, and Italy is unable, in the prevailing economic crisis, to build new ships. The ratios agreed upon in London may therefore well last until 1936 when, it is expected, the whole problem of naval armament will have to be re-examined.

iv. Land Armaments. The limitation of **land armaments** was primarily a **problem** for Continental Europe, for after the war Great Britain and the United States disbanded their armies raised during the war and returned to the system of small professional armies raised by voluntary enlistment. On the Continent the victorious Allies and most of the new states maintained or introduced the system of conscription. Although the term of service was gradually reduced, as, in the case of France, from three years to one, there remained a great discrepancy between the armies of the victorious powers and those of the defeated, which had been severely restricted by the peace treaties.

Bound by the Covenant to "formulate plans" for the reduction of armaments, the Council of the League appointed first a temporary and later a permanent committee to study the problem. After several years of negotiations, which were participated in by the United States and the Soviet Union, the permanent commission succeeded in preparing a **draft treaty** in 1930, which attempted to determine what armaments should be limited and how limitation could be accomplished. The treaty contained no figures, the degree of limitation being left to a general conference; and certain powers made reservations to some of the proposals. Germany declined to accept a limitation of effectives which did not include trained reserves; the United States would not consent to any limitation of expenditure; Italy declared that all the naval powers must agree on the proportions and the levels of maximum tonnage. An article providing that existing treaties providing for limitation of armaments should remain in force was rejected by Germany. The **most contentious problems** were, in short, **left open** by the draft treaty.

On February 2, 1932, the general **conference for the reduction and limitation of armaments** was opened at Geneva, under the presidency of Arthur Henderson, formerly British foreign secretary. Sixty nations, including the United States and the Soviet Union, were represented. After a month of general debate, the discussion was transferred to a General Commission, which was assisted by five technical commissions, every country being represented on each commission by one delegate. France, in conformity with the thesis sustained by her since the peace conference that "security" must precede disarmament, proposed the creation of an international force, chiefly aircraft, to be placed at the disposal of the League in the event that sanctions had to be applied under Article XVI of the Covenant. This proposal found little favor except among France's allies, and was particularly distasteful to Germany. Germany, for her part, demanded recognition of her "equality of right" to possess the same forces as all other countries. The Soviet government proposed a progressive and proportional reduction of armaments which should lead ultimately to their complete and rapid abolition. As none of these plans was generally acceptable, the conference was thrown back on the suggestions made by 27 countries for the total abolition or restriction of certain aggressive weapons, such as heavy artillery, tanks, bombing aircraft, and bacteriological weapons. In other words, "qualitative" disarmament was to be substituted for quantitative.

In June President Hoover sought to break the deadlock by a proposal to differentiate land forces into a "police component" designed to maintain internal order and a "defence component" intended to resist foreign attack, and to reduce the "defence component" by approximately one third. The proposal secured strong support, but could not be put through. Consequently in July the **conference adjourned** after **adopting a resolution** in four points **drafted by Dr. Beneš,** the Czechoslovak foreign minister. The resolution prohibited air attack against civilian populations and abolished its use in warfare, provided an agreement could be reached for the limitation of military aircraft and the control of civil aviation; declared for the limitation of heavy artillery and tanks; prohibited chemical, bacteriological and incendiary warfare; and proposed the establishment of a permanent disarmament commission. The resolution also outlined a program for the further work of the conference. Germany and Russia voted against the resolution on the ground that it failed to deal with fundamental issues and was "entirely inadequate," and the German delegation indicated that it would not return to the conference until the question of "equality" had been settled as Germany demanded.

Negotiations carried on during the summer between Germany, France and Great Britain did not lead to an agreement; but the conclusion of the Lausanne agreement (see Economic Reconstruc-

might be made without dislocating exchange. The annual payments were to start at $250,000,000, and rise gradually over a four-year period to $625,000,000; an "index of prosperity" was established according to which future payments might be decreased or increased.

During July, 1924, a **conference was held in London,** attended by representatives from the United States, to consider the application of the Dawes plan. As a result of this conference, France surrendered her right to take independent action in case of German default and also the right of the Reparations Commission, which France controlled, to declare Germany in default. The German delegates met with the Allies, and on August 15 a final agreement was made by which **France agreed to withdraw from the Ruhr** within a maximum period of a year. The German Reichstag passed the legislation necessary to put this plan in operation, and the international loan which was required was greatly oversubscribed in the United States.

v. Financial Difficulties of France after the Ruhr Invasion and the Dawes Plan. The **condition** of the public finances of **France** were for a time **desperate.** Her national debt following the War was more than 329,891 million francs. Her currency was disorganized by numerous and frequent issues of paper money, and her bank loans were enormous. Yet no other way could be found to carry through the restoration of the devastated regions, and this policy at least provided work for large numbers of people and spared France the problem of unemployment.

Until 1925 France adopted the expedient of placing all reconstruction costs in an "extraordinary" budget, which was balanced only by internal loans secured upon hypothetical reparation payments. The failure of the Ruhr invasion and the inauguration of the Dawes plan forced a general realization of the futility of this scheme. The ensuing collapse of the franc, from January, 1924, onwards, was prevented from going to extreme lengths only by **borrowing from America;** but the efforts of successive governments to achieve a genuine balance of national finances by adequate taxation were not at first successful, and the issuance of additional paper money reached grave dimensions. So dangerous was the situation that a party truce was declared, and under the leadership of Poincaré stringent economy and increased taxes were voted. **The franc,** which had fallen in 1926 to almost fifty to the dollar, gradually rose and was **stabilized** at twenty-five to the dollar. From 1927 the value of the franc remained constant and the Government accumulated immense foreign credits so that a return to the gold basis was possible in 1928. The new gold franc, however, is worth only about one fifth of the prewar franc.

France was perhaps the last country in the world to feel the general economic depression. Her agriculture and industry are relatively well-balanced, large-scale production has not been widely adopted, and her export trade is less in cheap goods than in articles of luxury and good taste for which the demand is fairly constant. Nevertheless, the collapse of private fortunes throughout the world was ultimately felt in **France,** and by 1932 **unemployment** had become **a serious problem,** although it was less extensive than in the highly industrialized countries like Germany, England, and the United States.

vi. The Young Plan and the War Debts. Germany was able by aid of loans and a remarkable industrial recovery to balance her budget and to meet the increasing payments under the Dawes plan. It was felt, however, that the payments required by the plan after 1930 were beyond her capacity to pay without dislocating the economic stability of the world. Moreover, it was contended that the financial supervision set up by the Dawes plan was an improper limitation upon Germany's sovereignty, especially since she had been admitted to the League of Nations.

Finally, the Dawes plan did not fix the total amount that Germany should be required to pay for reparations, and thus prevented her commercialization of her obligations. To meet these difficulties, a **meeting of experts under** the chairmanship of **Owen D. Young** of the United States was held **at Paris** from March 4 to June 7, 1929, which resulted in a recommendation to the Powers that the total amount due from Germany be fixed at $7,826,868,000, and an arrangement for the payment of this amount by annual annuities. The plan also provided for the establishment of an International Bank to handle the transfers of annuities, a limitation of the deliveries in kind which had been required from Germany, and a complete freeing of Germany from foreign financial supervision. This plan was referred to a conference of the ministers of the Powers concerned, August 6–30, and was finally accepted in principle, although Philip Snowden, chancellor of the English exchequer, won an increase of the share of the reparations payments for Great Britain, and the Powers promised the immediate withdrawal of their troops from German territory. This was carried out when the last Allied troops left the Rhineland, June 30, 1930.

What was the **relation of the United States to the problem of reparations?** In the first place, in January, 1925, in Paris, a meeting attended by American delegates was held to arrange for the payments due the United States for the cost of her army of occupation and the war damages her citizens had suffered. As a result, the United States agreed to accept compensation from the sums raised under the Dawes plan, and therefore became vitally interested in the successful operation of the scheme. Furthermore, the question of reparations was closely linked with the problem of the inter-Allied debts. At the peace conference President Wilson declined a British proposal for the general cancellation of all inter-Allied debts, and thereafter the American government, whether under Democratic or Republican control, consistently maintained that there was no connection between the debts owed to the United States and reparations; the only concession offered was that the capacity of the debtors to pay might be taken into consideration in determining the rate of interest.

On the other hand, the British government, by the so-called "Balfour note" of August 1, 1922, declared that it would ask for payment from its creditors only in proportion as the United States insisted on payment from Great Britain. Henceforth, the Allies declared, in substance, that they could pay the United States only as they were paid by Germany. The United States refused to recognize this reservation, and American opinion hardened in favor of exacting direct payment. Confronted by this attitude, the various **Allied governments,** between 1923 and 1926, **made agreements with the United States for the funding of their debts,** the payments being spread over a period of 62 years. In all cases the principal of the debt was maintained intact; the interest, however, was reduced in varying degrees, from about 25 per cent in the case of England to about 75 per cent in the case of Italy. Payment to the United States under these arrangements, as well as German payments on reparation under the Young plan, continued to be made until the adoption of the Hoover moratorium in 1931. In normal conditions the United States would have received 65 per cent of the reparation payments by Germany; because of the increase of the American tariff rate in 1922 and 1930, more and more gold had to be used in the payment of the Allied debts, and the consequent accumulation of gold in the United States is believed by many people to have contributed largely to the stock-market speculation of 1928–29 and the ultimate crash of 1932–33.

One attempt was indeed made to grapple with the problem of European depression on broad lines. Taking up an idea that had been much discussed privately for some years, the French foreign minister, Aristide **Briand,** at the 1929 Assembly of the League, **invited the European members to consider the possibility of a federal union,** primarily **for** the purpose of closer **economic co-operation.** The response was sufficiently encouraging for the French government to publish a plan in May, 1930. But as the plan was based on the maintenance of the political *status quo,* it aroused no enthusiasm in Germany or Italy; the British government was decidedly skeptical, lest it interfere with the British policy of strengthening the economic ties between the members of the British Commonwealth; while the exclusion of Russia and Turkey, which were not members of the League, evoked much criticism, although these states were ultimately included in the plan. In spite of much discussion both in and outside of the League, no agreement could be reached; and in 1931 the plan was quietly dropped. Although the advantages of a European customs union were widely recognized, **national prejudices** were still much **too strong to permit its realization.**

The World Depression

By 1930 the entire world was suffering from **economic depression** on an unprecedented scale, for which many causes have been assigned. The concentration of two fifths of the world's gold supply in the United States and one fifth in France — concentration which has served as a base for credit and reservoir for loans — has emphasized the **shortage of the world's gold** as a basis for national and international exchange. The oversupply and consequently diminishing value of silver has seriously hampered those nations on the silver basis, and greatly diminished the international trade with India and China. The **surplus of agricultural products** has led to widespread depression which has seriously diminished the power to purchase manufactured articles. The decade from 1920–1930 was one in which **industry** was rapidly **revolutionized through the introduction of labor-saving machinery,** thereby vastly increasing the output while diminishing the number of employees and dislocating the older methods of manufacture. The internal demands for reconstruction in most belligerent countries not only exhausted their own resources, but necessitated vast loans. The protective tariffs and the heavy taxes required to pay the interest on these loans have still further interfered with international trade. In 1930 the results of this dislocation were everywhere seen in the **slowing down of industry and increasing unemployment.** In many states attempts were made to mitigate the situation through doles and insurance. In some states the economic crisis was so severe as to result in the overthrow of the Government, as in Brazil, Argentina, and Peru. In Germany, the only large European state to hold a general election during the year, the discontent was voiced through the enormous vote cast for the candidates of the National Socialist and the Communist parties, which promised to the electorate alleviation for these conditions. In the United States, the Democratic party won control of the lower house of Congress in the elections of 1930. This change of conditions embarrassed President Hoover in his subsequent efforts to deal with the crisis.

The economic distress of 1930 was followed in 1931 by the **financial collapse of Central Europe,** the effects of which were felt successively in Germany, Great Britain, and the United States. This collapse was the inevitable consequence of the continued economic depression which prevented nations from disposing of their surplus products at prices that would enable them to pay their obligations. These obligations were of three sorts: reparation payments and war debts, which might be classified as political and aroused much international bitterness; the interest and amortization charges on long-term loans which had been made for purposes of rehabilitation but which had been somewhat recklessly granted and had reached enormous sums; and the short-term credits which had been lavishly extended by British and American bankers in order to keep the greatly enfeebled economic machine going. To take care of the distress of the mounting unemployment, governments were forced to increase their appropriations for relief, although, at the same time, their income from taxes was diminishing, while the system of "quotas," widely introduced to control imports, greatly reduced international trade and only made matters worse.

The precipitating incident occurred in **Austria** in the **failure of the Creditanstalt** (June, 1931) which was caused finally by the refusal of French banks to grant further credits except on terms that were politically unacceptable. This situation **reacted on Germany,** where a banking crisis was already manifesting itself, in no small degree because American banks were recalling their short-term credits. President **Hoover** therefore, on June 20, 1931, **proposed a suspension of payments on all reparations and international war debts** for a year beginning July 1. This **proposal** was much **resented in France,** for the French government had not been consulted about it and the French budget faced a heavy loss in consequence. The French government accordingly sought to attach political conditions to its acceptance, and more than two weeks elapsed before an agreement could be reached, by which time the effect of the moratorium, as a stimulant to general confidence, had largely been lost. During the summer Germany's creditors negotiated a "standstill" agreement which extended the time for the repayment of "frozen" short-term loans. But this in turn reacted disastrously on Great Britain, for fear that the British budget would not be balanced and that British banks would not meet their obligations led to a foreign "run" on the Bank of England. To meet this situation, **Great Britain went off the gold standard** on September 21, in which she was followed by many European and South American countries and most of the British dominions. The general uncertainty of the world situation was greatly increased by the **beginning of serious conflict in Manchuria** between China and Japan (September 18, 1931) (see The League and the Far East).

France and the United States, which had most of the world's gold in their vaults, were now the two principal countries remaining on the gold standard. In the hope of bringing about some kind of joint action, Premier Laval, of France, visited President Hoover at the end of October. At this moment the situation in the United States was serious. The American people had begun to hoard, and it had been necessary to establish the Emergency Relief Corporation to provide domestic credits; moreover, large sums of gold had been withdrawn by Europe. The **Hoover-Laval conversations** therefore resulted in: (1) a statement that France and the United States were determined to preserve the gold standard; (2) an agreement the substance of which seems to have been that France and Germany should attempt to negotiate a settlement of reparations which would restore confidence and stabilize the situation to such an extent that Congress would be willing to make a contribution to the general settlement by reducing the war debts. The expectation was that both these things could be accomplished before the expiration of the Hoover moratorium on June 30, 1932.

These hopes were not fulfilled. On the one hand, the negotiations between France and Germany were greatly delayed because of the approach of elections in both countries, so that the conference on reparations did not meet until June 16. In the second place, it could not be foreseen that the new Congress,

which met in December, 1931, would pass a resolution declaring that it is "against the policy of Congress that any of the indebtedness of foreign countries to the United States should be in any manner canceled or reduced."

The progressive economic deterioration in the first half of 1932, especially in the United States, the deadlock in the conference for the reduction and limitation of armaments at Geneva (see DISARMAMENT), and the perilous situation in the Far East made agreement on the question of reparations imperative. Meanwhile the European political situation had been profoundly modified. In Germany, President Hindenburg had been re-elected president, but Adolf Hitler, the head of the National Socialist party, had shown increased strength. To deal with the situation, Hindenburg dismissed Chancellor Brüning, who possessed the confidence of the French and British governments, and appointed Colonel von Papen, who lost no time in making clear that Germany would not resume reparation payments. In France, the election had resulted in a victory of the Left parties, who realized that little or nothing could be got out of Germany.

In consequence, the **reparations conference** which met **at Lausanne** from June 16 to July 8, 1932, did little more than register decisions already arrived at. Germany of course argued for complete cancellation of reparations, while France desired the formal continuance of the Young plan, on the understanding that the payments specified therein should be greatly reduced. In the end an **agreement** was reached, largely through British mediation, that **Germany** should make a **final payment of 3,000,000.000 gold marks** ($714,000,000), which was to be paid into a general fund for European reconstruction; the money was to be raised by the issue of bonds which would be sold by the International Bank in Basel when Germany's economic situation made it practicable. It was obvious that a long time must elapse before any money became available "for European reconstruction." The extent of the German victory is best gauged if it is remembered that the Young plan required Germany to pay a total of nearly eight billions of dollars. Germany, however, was unable to secure any concession from France and Great Britain on the question of Article 231 of the Treaty of Versailles, which, according to German interpretation, imposed reparations on Germany because she was responsible for the war. Nevertheless, it cannot be said that the question of reparations was finally disposed of by the Lausanne arrangements, for Great Britain, France, Italy, and Belgium concluded a "gentlemen's agreement" to the effect that the treaty would not be ratified "until a satisfactory settlement has been reached between them and their own creditors"; that is, until an adjustment of the war debts had been secured from the United States. In a sense the expectation of reparations had ceased to operate, for twelve years' experience had proved that the vast sums involved could not be transferred without far-reaching and incalculable repercussions on the economic life of Europe; and that any attempt to revive the payments suspended by the Hoover moratorium would only delay, if not prevent, the process of world recovery. With these arguments the European creditors turned to the United States in the autumn of 1932.

Since the Hoover moratorium expired on June 30, **payments** would be **due to the United States** on **December 15**. Under the debt-funding agreements the debtors were entitled to postpone payment by giving ninety-day notice, but in view of the impending presidential election, no such notices had been given, because the prevailing American sentiment was only too well known in Europe. But once the election was over, the European governments were free to act, and both **Great Britain and France** promptly **asked for a reconsideration** of the whole question and, pending that reconsideration, suspension of the payments due on December 15. Questions of foreign policy had hardly been touched on in the campaign, except the tariff, but both candidates had declared their opposition to any cancellation of war debts. In the exchange of diplomatic notes which took place in November and December, President Hoover and Secretary Stimson declared that the United States would not refuse to examine the capacity of any debtor to pay, but that such an examination depended on meeting the obligations due on December 15. Faced with this alternative, **Great Britain, Czechoslovakia, Italy,** and **three Baltic States paid.** The **French government** was prepared to pay, but it was **overthrown** by the Chamber of Deputies, which had ratified the Franco-American debt agreement with the reservation that French payments to the United States were dependent on German reparations. Following the example of France, **Poland, Belgium, Estonia,** and **Hungary** also **deferred** their **payments.** In substance, the question was left for Roosevelt to deal with as President after his inauguration; the only indication he gave of his attitude was the statement that all debtors, whether or not they had paid on December 15, should be given a hearing.

Various efforts were made during 1932 to provide **assistance for the stricken countries of the Danubian basin.** Austria continued to suffer from the difficulties which had afflicted her since the end of the War, and they were intensified by the progressive decline of all international trade. Among her neighbors the situation was dominated by the falling price of all cereals. Accordingly, in March, the French government suggested that Austria, Hungary, Czechoslovakia, Rumania, and Yugoslavia should form a Danubian union based on a system of preferential agreements and import quotas. This was regarded in both Vienna and Berlin as an attempt to detach Austria from Germany; the latter therefore insisted that she should be admitted to the union, in which she was supported by Italy. As this in turn was displeasing to France, the project came to nought. In the summer a group of states agreed to guarantee a twenty-year loan to Austria of 300,000,000 schillings, but this was a stopgap solution. In September a general international conference held at Stresa declared the necessity of reducing and removing the restrictions upon commerce in central and southeastern Europe; and produced a plan for the revalorization of cereals. At the end of the year these recommendations had not yet been adopted by the governments.

The World Economic Conference in London, 1933

Long before the change of administration in the United States, voices had been raised there and elsewhere in favor of some kind of international action to cope with the world-wide depression. The European governments had wished to include general economic problems in the agenda of the Lausanne conference, but the United States refused to participate in this conference because it was unwilling to discuss the war debts in connection with reparations. The Lausanne conference had therefore to confine itself to the problem of reparations. The United States, however, did agree to attend an international economic conference in London "for the purpose of considering methods to stabilize world commodity prices," provided war debts, reparations, and disarmament, as well as specific tariff rates, were not discussed. Acting on this assurance, the **Lausanne conference set up a preparatory commission of experts which,** on January 19, 1933, **issued a draft agenda for the conference in London.** This agenda comprised six points: (1) monetary and credit policy; (2) level of prices; (3) resumption of the movement of capital; (4) restrictions on international trade; (5) tariff and treaty policy; and (6) organization of production and trade. Although opinions differed widely as to the proper methods of solving these problems, there was general agreement that they needed to be discussed as a single whole. By the end of 1932 the necessity for action was more apparent than ever. The total value of world trade for the year 1932 was 34 per cent less than in the previous year and more than 60 per cent below 1929; in volume the reduction for the year had been 26 per cent. The number of unemployed workers had increased from twenty millions to more than twenty-five. The burden of debt was made ever heavier by the continuing decline of prices, which were 10 per cent below those of 1931 and a third lower than in 1929.

As soon as the banking crisis in the United States had been weathered (March, 1933), **President Roosevelt** addressed himself to the international situation and **invited representatives of the principal nations of the world to confer with him in Washington.** At the end of April, Prime Minister MacDonald of Great Britain, Prime Minister Bennett of Canada, and ex-Premier Herriot of France visited the President, and were followed by a long list of statesmen and experts. No definite agreements appear to have been reached, either on economic questions or on matters of disarmament and security, with which, it was recognized, the problem of economic recovery was closely linked. But the conversations were sufficiently successful for the organizing committee of the economic conference to fix June 12 as the date of its opening in London. On May 12, a tariff truce was concluded in London between eight of the principal powers.

Before the conference opened, the prospects of its being successful were reduced by several circumstances. In the first place, the **United States, on April 19, abandoned the gold standard.** This not only rendered the foreign exchanges unstable, but aroused a suspicion abroad that the United States was endeavoring to improve its bargaining position in the coming negotiations on tariff questions; the charge was denied by the American government, and in a message sent to the heads of states on May 16, President Roosevelt declared that the conference "must establish order in place of present chaos by the stabilization of currencies." Whatever the motive of the American action, its effect was detrimental to the conference. In the second place, although **the President** had pronounced himself in favor of tariff adjustments and reductions, he **failed to secure from Congress authority either to adjust the American tariff or to negotiate on the question of war debts.** This was the more unfortunate because, in the third place, a payment on the war debts was due on June 15, and President Roosevelt could only do what President Hoover had done in December, 1932: — call on the debtors to pay. Of the debtors, only Finland paid in full; Great Britain, formally recognizing her obligation to pay, offered a "token" payment of $10,000,000 in silver at the rate of 50 cents an ounce (the equivalent of about $7,200,000), and this was accepted by the United States. The British example was followed by Italy, Czechoslovakia, and Rumania. France, Belgium, Poland, Yugoslavia, Estonia, Lithuania, and Hungary defaulted altogether. Out of a total of $143,604,856 due to the United States, only $11,359,592 was received. Thus **by the time the conference opened, Europe and the United States had been mutually irritated.**

The **conference,** attended by 168 delegates from 66 nations, **sat in London from June 12 to July 27, 1933.** The British prime minister, Ramsay MacDonald, served as president; France sent Premier Daladier as her chief delegate, and Cordell Hull, secretary of state, was head of the American delegation. King George opened the deliberations with a sympathetic speech, but Mr. MacDonald, although any discussion of war debts had been ruled out by the United States, saw fit to say that "the question of the war debts . . . must be dealt with before every obstacle to general recovery has been removed, and . . . must be taken up without delay by the nations concerned." Fortunately, the British regularized their position by making the "token" payment noted above. When the general discussion got under way, it was soon evident that the **conversations in Washington had not led to any substantial agreement among the nations.** M. Daladier urged the necessity of currency stabilization and an adjustment of the war debts, but said nothing about tariffs. Mr. Hull said much about the reduction of tariffs, but opposed stabilization and ignored the debts. His plea for the raising of prices was opposed by Signor Jung for Italy, if this were to be accomplished by an artificial expansion of credit. Mr. Neville Chamberlain, the British chancellor of the exchequer, wished to raise prices by a policy of cheap money, declined to give a precise commitment on the restoration of the gold standard, favored a reduction of tariffs, and argued for a settlement of the war debts. M. Litvinov, the Soviet commissar of foreign affairs, urged the conference to work for the potential absorption of existing surplus stocks, and hinted that in return for credits his government might absorb a billion dollars' worth of the surplus. In other words, each nation advocated the particular policies which best suited its own economic position Obviously, **the preliminary preparations for the conference had been inadequate, and national interests rather than international harmony were the prevailing note.**

The head of the American delegation had long been a student of tariff policies and held strongly the view that the process of recovery would be greatly facilitated by a reduction of tariff duties throughout the world. It was therefore appropriate that Mr. Hull on June 22 introduced a resolution which declared that "embargoes, import quotas and various other arbitrary restrictions should be removed completely . . . and . . . tariff barriers reduced as quickly as possible." But serious discussion of this problem was impossible so long as the principal currencies of the world, or some of them, were unstable, and since April, when the United States went off the gold standard, the dollar had been steadily dropping and continued to do so during the sessions of the conference. A proposal for temporary stabilization was rejected by the American government on the ground that "its efforts to raise prices [by depreciating the dollar] are the most important contribution it can make and anything that would interfere with these efforts . . . would harm the conference more than the lack of an immediate agreement for temporary stabilization." This attitude was deeply resented by the bloc of countries still on the gold standard — France, Italy, Switzerland, Belgium, Holland, and Poland — and when at the end of June the Dutch currency seemed to be threatened, the bloc demanded that Great Britain and the United States stabilize the pound and the dollar respectively. Accordingly a declaration was worked out by Mr. MacDonald and Raymond Moley, assistant secretary of state of the United States who had come to London as the personal representative of President Roosevelt, which would effect a compromise between the United States and the gold bloc. The countries on the gold standard were "to maintain the free working of that standard at current gold parities"; the countries off gold would declare their intention, "without in any way prejudicing their future ratios to gold . . . to bring back an international standard based on gold," and would adopt the necessary measures to limit speculation in exchange. In President Roosevelt's opinion, this commitment would be incompatible with the policies being pursued in the United States for the purpose of recovery, and on July 1, he rejected the proposal, addressing to the conference two days later a long statement of his reasons. In this document, he denounced "the specious fallacy of achieving a temporary and probably artificial stability in foreign exchange on the

1931 (*continued*). relative claims of China and Japan. This is apparently accepted by both China and Japan.

Dec. 23. The **committee of experts** meeting at Basel **reports on Germany's economic situation,** pointing out that in the present world situation Germany, although making every effort to stabilize her currency, is unable at the present time to meet her obligations and in the opinion of the committee, will be unable to meet the conditional payments under the Young plan in the year following the moratorium and recommends an adjustment of all intergovernmental debts.

1932. *Jan. 7.* Secretary Stimson notifies China and Japan that the United States will not recognize any settlements arrived at in violation of the Kellogg Pact.

Feb. 2. The **Disarmament Conference** attended by 54 nations opens in **Geneva.** The United States, Great Britain, France, and Italy submit notes to the Chinese and Japanese governments proposing cessation of all acts of violence and mobilization, withdrawal of Chinese and Japanese troops from points of mutual contact in the Shanghai area, and the establishment of neutral zones to protect the International Settlement.

Feb. 12. **China** formally **requests that the Council** of the League of Nations **be summoned** to consider the Chino-Japanese dispute.

Feb. 16. The Council of the League of Nations addresses a note to Japan urging that Japan observe the terms of the Covenant of the League, the Nine-Power Treaty, and the Kellogg Pact.

Feb. 19. At the request of the Chinese delegate, the **Council of the League** of Nations summons a special meeting of the Assembly for March 3.

Feb. 29. The Council of the League of Nations proposes that a conference be set up in Shanghai to bring about the cessation of hostilities between China and Japan.

March 3–11. A **special meeting of the League** of Nations called to consider the Chino-Japanese dispute appoints a Committee of Nineteen to study and report upon the situation. A resolution is adopted declaring the League's adherence to treaties and all undertakings entered by members of the League against external aggression, and the obligation of all members to submit disputes for peaceful settlement.

April 6. A **four-power conference** of Great Britain, France, Germany, and Italy, is held **in London, to discuss methods of saving the Danubian States** from economic disaster. France, with the reluctant support of England, proposes mutual tariff arrangements between the Danubian states that will exclude Germany. Germany and Italy favor a general economic union.

April 11. Ambassador Gibson proposes at the Disarmament Conference a prohibition on types of offensive armament. This is supported by Great Britain but opposed by France.

April 15–28. Secretary Stimson visits Paris and Geneva, holding conferences with the statesmen and leaders of the Disarmament Conference.

April 19. The Committee of Nineteen appointed by the Assembly of the League of Nations adopts a resolution calling upon Japan to leave Shanghai.

April 30. The League of Nations adopts a resolution urging Chinese and Japanese representatives to continue their negotiation, and supports the action of the joint commission.

June 7. The Permanent Court of International Justice decides the free zone controversy between France and Switzerland in favor of Switzerland.

June 16–July 8. A **Conference** held **at Lausanne** fixes the amount Germany shall pay in reparations at 3,000,000,000 gold marks ($714,000,000). This agreement must be ratified by the governments of the powers concerned.

June 19. The delegations of the League of Nations on the gold standard advocate retention of gold at the international meeting.

June 22. President Hoover submits proposals to break deadlock at Disarmament Conference.

July 18. **Turkey is admitted to the League** of Nations.

July 23. The **Disarmament Conference adjourns,** having passed a series of resolutions advising limitations on air armaments, land artillery, and naval armaments.

Sept. 5–20. The conference on the economic conditions of the Danubian States is held at Stresa. It recommends preferential treatment for wheat exports and the establishment of a fund for this purpose.

Sept. 6. A note sent by Germany to France on August 29 is made public, demanding **equality in armaments,** either by disarmament of other nations to the standard imposed upon Germany by the Versailles Treaty or the removal of restrictions allowing Germany to rearm.

Sept. 11. France replies asserting the compelling force of the Treaty.

Sept. 18. Great Britain replies to the German note, asserting the compelling nature of the Treaty but hoping for friendly negotiations.

Sept. 26–Oct. 15. The **thirteenth Assembly** of the League of Nations meets **at Geneva** with Eamon de Valera as president.

Oct. 2. Excerpts from the **Lytton Report** on the relations between China and Japan are made public. In the survey of events, Japan is condemned for acting precipitously and resorting to force. The Commission proposes a Chino-Japanese conference with the erection of an autonomous state of Manchuria, a part of the Chinese republic, a series of foreign advisers for the government of Manchuria, and a series of nonaggression and commercial treaties between China and Japan.

Nov. 14. France makes new proposals for disarmament.

Nov. 14–27. The Council of the League of Nations considers the Lytton Report on Manchuria and votes to refer it to a special meeting of the Assembly to be held December 6. This is postponed until January 16, 1933. In the meantime, the Committee of Nineteen is attempting some form of conciliation.

Dec. 11. Five-power "no force" declaration signed at Geneva.

1933. *Jan. 17.* President-elect Roosevelt declares that his administration will continue to uphold policy of sanctity of treaties.

Jan. 19. Draft agenda issued for World Economic Conference.

Jan. 30. Adolf Hitler becomes German chancellor.

Feb. 1. Bolivia and Paraguay accept proposal of the League of Nations for a commission of inquiry in the Chaco dispute.

Feb. 2. **Disarmament Conference reassembles** at Geneva.

Feb. 6. The Committee of Nineteen unanimously decides to recommend nonrecognition of "Manchukuo."

Feb. 14. The Committee unanimously approves report condemning Japan.

Feb. 15. The Little Entente is consolidated in a single treaty signed at Geneva.

Feb. 17. The **League broadcasts a censure of Japan** and invites the United States and the Soviet Union to join in a further effort to settle the Manchurian dispute.

Feb. 18. Colombia invokes Article XV of the Covenant of the League in the dispute with Peru over Leticia.

Feb. 24. The League of Nations adopts the Lytton Report; the Japanese delegation withdraws.

March 1. Council of the League proposes occupation of Leticia by international troops pending peace negotiations. Colombia accepts at once; Peru accepts April 12.

March 7. The Soviet Union declines to co-operate with the League in the Manchurian dispute.

March 11. The United States accepts the League's invitation to co-operate with the advisory committee, but will not vote.

March 16. MacDonald offers new plan for limitation of armaments.

March 19–20. MacDonald and Mussolini discuss a Four-Power Pact in Rome.

March 27. **Japan withdraws from the League of Nations.**

April 18. The Council of the League submits Chaco peace plan to Paraguay and Bolivia; rejected by Bolivia.

April 19. The **United States abandons the gold standard.**

April 23–26. MacDonald for Great Britain, Herriot for France, and Bennett for Canada confer with Roosevelt in Washington. Representatives from other countries follow.

April 26. The United States announces approval of new British plan at Geneva.

May 11. **Germany announces her intention to rearm.**

May 12. Tariff truce signed in London by eight nations to last until July 31.

May 16. Message of President Roosevelt to heads of governments throughout the world pleading for disarmament and proposing new definition of aggression.

May 17. Speech of Chancellor Hitler to German Reichstag declaring that Germany will not rearm if other nations disarm.

May 22. Norman H. Davis at Geneva announces that the United States is prepared to consult with other nations to avert war and to waive its neutral rights against an aggressor.

May 25. Colombia and Peru sign agreement with the Council of the League to cease warfare in Leticia.

May 27. U. S. Senate passes resolution authorizing the President to forbid trade in arms with belligerents.

May 30. Modified Four-Power Pact accepted by Poland and Little Entente.

May 31. Truce signed between China and Japan.

June 2. Colonel Arthur Brown, U. S. Army, appointed chairman of the League commission to administer Leticia.

June 7. League of Nations advisory committee adopts measures to make effective the policy of nonrecognition of "Manchukuo."

June 12. **World Economic Conference opens in London.**

June 15. Great Britain, Italy, Czechoslovakia, and Rumania make "token" payments on debts to United States. Other states default, except Finland, which pays in full.

July 1. Roosevelt rejects proposal of World Economic Conference for stabilization of currencies.

July 2. Reconstruction Finance Corporation advances $4,000,000 for purchase of cotton by Soviet Russia.

July 3, 5. The **Soviet Union signs** (in London) **pacts of nonaggression** with Estonia, Latvia, Lithuania, Poland, Rumania, Turkey, Persia, and Afghanistan.

July 6. United States announces huge three-year naval building program.

July 11. Japan announces naval building program.

July 15. **"Agreement of Understanding and Co-operation" (Four-Power Pact) signed** in Rome by Great Britain, France, Italy, and Germany.

July 19. The Council of the League appoints a commission of five to investigate the Chaco dispute.

July 22. Agreement signed in London by silver-producing and silver-using nations.

July 27. **World Economic Conference adjourns.**

July 29. German airplanes over Austria to arouse hostility to Dollfuss government.

Aug. 2–5. Great Britain, France, and Italy protest against German activity in Austria as contrary to Four-Power Pact; Germany promises to desist.

Aug. 24. Italy promises economic concessions to Austria if Austria will prevent union with Germany.

Aug. 25. **International wheat agreement signed** in London.

Sept. 2. Pact of nonaggression signed by Italy and the Soviet Union. Austria authorized to increase its army.

Sept. 4. **Japan declares** that it will **claim equality of naval armaments** at conference of 1935.

Sept. 26. United States notifies Great Britain that it will not postpone its naval building program.

Sept. 28. France proposes that Germany accept trial period of four years with armaments at present levels; Germany demands "sample" weapons.

October. Germany and Poland open negotiations for a commercial truce and a pact of nonaggression.

Oct. 10. **President Roosevelt telegraphs to President Kalinin, of the Soviet Union, proposing negotiations** between the two countries.

Oct. 14. Great Britain, France, Italy, and United States formulate new program for disarmament, which is communicated to Germany. Germany withdraws from the Geneva conference.

Oct. 16. Norman H. Davis states at Geneva that the United States will continue efforts for disarmament but will not participate in political conversations in Europe.

Oct. 17. Maksim Litvinov, Soviet commissar of foreign affairs, arrives in Washington.

Oct. 21. **Germany withdraws from the League of Nations.**

Nov. 8. The United States notifies the League of Nations that it concurs in the recommendations of the advisory committee not to recognize "Manchukuo."

Nov. 12. Plebiscite in Germany supports the foreign policy of the Hitler government.

Nov. 13. The League Commission on the Chaco dispute arrives in Montevideo.

Nov. 16. The **United States recognizes the Soviet government.**

Nov. 21. Hitler proposes direct negotiations with France on disarmament and the Saar.

Nov. 22. **Disarmament Conference adjourns** until January, 1934.

Dec. 7. France declines direct negotiations with Germany and insists on negotiations through the League.

Dec. 19. Armistice arranged between Bolivia and Paraguay.

Dec. 25. Paraguay notifies League Commission that she will not begin peace negotiations until the war zone is evacuated by Bolivia.

Dec. 27. France offers to scrap half of her bombing planes if other nations will do the same.

Dec. 28. **President Roosevelt declares for a policy of nonintervention in Latin America** and praises the League of Nations.

WAR MEMORIALS AND MONUMENTS

1. TOMB OF THE UNKNOWN SOLDIER AND ARC DE TRIOMPHE, *Paris, France*

2. CANADIAN WAR MEMORIAL *Vimy Ridge, France*

3. TOMB OF THE UNKNOWN SOLDIER *Arlington, Virginia*

4. NATIONAL WAR MEMORIAL *Wellington, New Zealand*

5. TOMB OF THE UNKNOWN SOLDIER *and* VICTOR EMMANUEL MONUMENT, *Rome, Italy*

6. THE CENOTAPH *London, England*

7. NATIONAL WAR MONUMENT *Leipzig, Germany*

8. TOMB OF THE UNKNOWN SOLDIER *Warsaw, Poland*

9. ARMISTICE MONUMENT *Compiégne Woods, France*

PART TWO. NATIONAL HISTORIES

HISTORICAL OUTLINES, ORGANIZATION, AND CHRONOLOGIES OF ALL EXISTING NATIONS

ABYSSINIA

Historical Outline

ABYSSINIA corresponds in part with ancient Ethiopia. Its boundaries, formerly vague, were defined by treaties in 1906–07 so that it is shut off from the Red Sea and the Gulf of Aden by the Italian dependency of Eritrea and by French Somaliland and British Somaliland. By these treaties Great Britain, France, and Italy undertake to preserve the integrity of Abyssinia, to maintain the "open door" as far as concessions are concerned, and to abstain from intervening in internal affairs.

The Abyssinians were converted to Christianity in the fourth century and have remained members of the Alexandrian Church. The government is monarchical, and from 1889 to 1917 the emperor was Menelik, who in his attempt to check Italian aggression, became involved in war. The Italian forces were decisively defeated at the battle of Aduwa (March 1, 1896), and as a result Menelik was recognized as an independent monarch. In 1931 a constitution was proclaimed providing for a unified state governed by the emperor advised by a bicameral legislature.

The chief industries are pastoral and agricultural. Cattle, sheep, and goats are numerous, and mules are bred everywhere. Cotton, sugar cane, the date palm, coffee, and the vine might thrive, but are not extensively cultivated. The roads are mere tracks, and transport is effected by means of pack horses, mules, and donkeys. The chief exports are hides, coffee, ivory, and beeswax.

For area and population, see page 304.

Chronology

330. **Frumentius,** instrumental in converting the region, is made **first bishop of Ethiopia.**

675. Moslem advance cuts Christian Ethiopia off from contact with outside world.

1490. Arrival of Corilham, in search of Prester John. Portuguese missions into the country begin about this time, and Jesuits remain for a century and a half.

1633. **Jesuits expelled;** country relapses into **isolation.**

1769. Bruce, in his exploration of the Blue Nile, visits Abyssinia.

1805. **First mission** (British). Missionaries and explorers follow.

1855. Theodore, by conquest of other chiefs, becomes negus, or ruler.

1868. **War with Great Britain** results in Theodore's death (April 13); succeeded by a rival, John.

1869. *Nov. 15.* Beginning of the Italian colony of Eritrea; this and French, British, and Italian Somaliland lie between Abyssinia and the coast.

1889. *March 9.* Death of John; a rival, **Menelik,** gains the chief power.

May 2. **Uccialli treaty,** under which Italy claims a protectorate.

1895. **War with Italy;** crushing defeat of Italians at **Aduwa,** March 1, 1896.

1896. *Oct. 26.* Treaty of peace of Addis Ababa; Italy acknowledges **absolute independence of Abyssinia.**

1902. *Dec. 31.* **Completion of railway** from Djibouti, French Somaliland port, to Dire Dawa, about 30 miles northwest of Harar.

1906. *Dec. 13.* **Anglo-Franco-Italian agreement** provides for territorial integrity and domestic independence of Abyssinia, and equal concessionary advantages.

1919. *July 14.* President Wilson receives Abyssinian delegates sent to extend congratulations on success of the World War.

1923. *Sept. 28.* Abyssinia is **elected to the League of Nations.**

1930. *Nov. 2.* **Emperor Haile Selassie I is crowned** Lord King of Kings of Ethiopia, Conquering Lion of the Tribe of Judah, the Elect of God, and the Light of the World.

1931. *July 16.* Emperor Haile Selassie voluntarily signs a constitution providing for a two-chamber parliament with responsible ministers.

1932. *April 4.* The Anti-Slavery Society's mission returns from Abyssinia and announces that Emperor Haile Selassie has promised to free all the two million slaves in his country within fifteen years.

ADEN

See under BRITISH EMPIRE, page 89.

AFGHANISTAN

Historical Outline

AFGHANISTAN is geographically a lofty quadrilateral plateau lying between northwestern India, eastern Persia, and Russia. The Afghans, who are the predominant population of the country, are of unknown origin, though doubtless a residue of the old Indo-European stock. Afghanistan was conquered by the emperor Tamerlane, who died in 1405. Sultan Baber added a part of Afghanistan including Kabul to his domains and for two centuries it belonged to India and was ruled by the Mogul emperors.

The Persian Nadir Shah seized it in 1738. In 1749 a separate empire was formed by Ahmad Shah, who defeated the Marathas in 1761 and gave the country a national character. After Ahmad came Timur Khan, who transferred his capital from Kandahar to Kabul. Among his twenty-three sons a strife arose for the succession. Finally, in 1818, Kamran Khan obtained the throne, which he held for thirty years. In 1842 Dost Mohammed captured Kabul and made himself supreme.

The attention of Great Britain, now firmly established in India, was turned to Afghanistan; and aggressions on English officials aroused the spirit of the British. In 1841 two British officials were injured in a revolt in Kabul. Soon afterwards Sir William Macnaghten was murdered by Akbar Khan, son of Dost Mohammed. An agreement was made for the withdrawal of the British garrison from the country; but the march of the 690 Europeans from Kabul to Jalalabad was a massacre. Only 23 of the number reached Jalalabad, though 95 prisoners were ultimately liberated.

To avenge this outrage an expedition in 1842 under General Pollock forced the Khyber Pass and relieved Jalalabad. Dost Mohammed was restored to the throne as a friend of the British government. After his death Shere Ali Khan came to the throne with the aid of Great Britain and succeeded in extending his authority over Afghan Turkestan on the borders of the Russian conquests. The boundary of the Amu Darya (ancient Oxus) River was obtained by the influence of Great Britain, which had now adopted the policy of maintaining Afghanistan as the frontier barricade of her Indian possessions.

Shere Ali Khan was at length obliged to fly from Kabul by his son, Yakub Khan, who proved hostile to England. A British army was sent into the country and Kabul was captured (1878). Again the British envoy and his followers were massacred, and a second invasion was necessary in order to avenge the crime and restore order.

Yakub Khan was succeeded in 1880 by Abd-er-Rahman Khan, grandson of Dost Mohammed, supported by British influence. A more regular and orderly government was established. In 1896 the army was reorganized, regular conscription established, and the troops armed with European weapons. Abd-er-Rahman was succeeded by his son, Habib Ullah Khan, who (1905) promised to observe the agreement of his father and to be guided by the advice of the British government in external affairs. Russia declared Afghanistan outside her sphere of influence, and Great Britain agreed not to interfere in internal affairs, provided the Amir fulfilled his obligations to the British government. Habib Ullah Khan was assassinated February 20, 1919, and was succeeded by his third son, Amanullah Khan, and attacks upon the British have followed along the northwestern frontier of India.

In 1921 Great Britain recognized the complete independence of Afghanistan, ended the subsidy, and withdrew the privilege of importing arms and ammunition through India. In the same year Soviet Russia, after the recognition of Bokhara and Khiva, granted an annual subsidy to Afghanistan, while Turkey made an offensive and defensive alliance. In 1923 Great Britain renewed the privilege by a new treaty of importing arms and merchandise from India.

In 1928 the rapid attempts of King Amanullah to westernize the country produced a revolt which resulted in his abdication and civil war, which was terminated by the success of Nadir Khan who became king.

Organization

Government. The government is a constitutional monarchy with a National Council of 106 deputies sitting permanently at Kabul, selected from the twelve administrative divisions of the country and the clans; and a Cabinet with a Prime Minister. A great Assembly representing the whole population is summoned at irregular intervals, usually of about four years, to consider questions referred to it by the king. In 1926 the title of King was adopted for the sovereign instead of Amir.

Industry and Production. The principal industry of Afghanistan is agriculture. The chief products are fruits, including the apple, pear, almond, peach, quince, and apricot. Vegetables and cereals are also raised in paying quantities in the fertile plains and valleys, often with the aid of irrigation from small rivers or wells. There are two harvests in the year in most parts of the country, one reaped in the summer, the other in autumn. The principal minerals are copper and lead, although iron is produced and gold is found in small quantities. The leading manufactures are silk and carpets, felts and articles made of camel's and goat's hair. No accurate figures of the trade are obtainable, but in 1932 the exports to Great Britain amounted to over $75,000 and the imports from Great Britain $325,000.

Defense. The Afghan army is said to number 98,000 men. The real military strength lies in the mountainous character of the country, the lack of roads, and the capacity of the inhabitants for guerrilla warfare.

The greater part of the territory of Afghanistan is taken up with lofty mountains and high-lying valleys. In the north, on the banks of the Amu Darya, and in the southwest are wide-extending plains. Temperature varies from 12 below zero to as high as 120 above in the shade along the Amu Darya.

For area and population, see page 304.

Chronology

1747. Following various Indian, Turkish, and Mongol dynasties, the rule of the present **Durani dynasty** is established by Ahmad Shah.

1793. Death of Timur, Ahmad's son, leaves the **country a prey to anarchy** for many years.

1838–1842. **First Afghan War** marks the beginning of strife and intrigue over Afghanistan as a buffer state between British and Russian interests in Asia. British attempt to impose an unpopular ruler, Shah Shuja, fails.

1878–1881. **Second Afghan War** with Great Britain follows an unsuccessful attempt to check diplomatically Russian ascendancy over the Amir. **Abd-er-Rahman** becomes Amir under British protection and subsidy, centralizes authority, and restores order.

1901. *Oct. 1.* Abd-er-Rahman dies and is succeeded by his son **Habib Ullah.** Policy of following British advice on external relations continues, with **independence in internal affairs.**

1907. *Aug. 31.* **Anglo-Russian agreement** on Afghanistan places the country outside the Russian sphere of influence, but Great Britain agrees to refrain from interference in the internal affairs. Part of the *Entente Cordiale.*

1914–1918. During the World War the Amir continues his British friendship, resisting Islamic and German intrigue.

1919. *Feb. 20.* **Amir is assassinated** and is **succeeded by a son, Amanullah,** believed to be implicated in the assassination, under **Bolshevist influences.** Afghans attack the Indian frontier, and a **mission is sent to Moscow.**

Aug. 8. **Peace** is made **between Great Britain and Afghanistan;** Afghans put on probation. Tribes, however, continue irregular warfare, with increasing intensity early in 1920.

1921. *Sept. 4.* **Treaty with Russia** ratified.

Nov. 22. **British treaty** of friendship is signed at Kabul, recognizing the independence of Afghanistan.

1923. *June 5.* **An Anglo-Afghan trade convention** is signed granting Indian customs and transportation advantages for importation into Afghanistan of factory machinery and other goods.

1926. *Sept. 2.* **A neutrality compact between Russia and Afghanistan** stipulates that each country shall remain neutral in the event of conflict with a third party, provides for noninterference in each other's affairs, and prevents participation of any person in activities detrimental to either power.

1928. *Dec. 17.* A serious **revolt breaks out** at Kabul due to the drastic reforms forced by King Amanullah.

1929. *Jan. 14.* **King Amanullah abdicates the throne,** and on October 15 **Nadir Khan is proclaimed King.**

Nov. 15. Great Britain recognizes the government of Nadir Khan.

1933. *Nov. 8.* King Nadir Shah is assassinated and his son Mohamed Zahir is proclaimed King with the title King Zahir Shah.

AFRICA

See *British East Africa,* under BRITISH EMPIRE, page 94; *British West Africa,* under BRITISH EMPIRE, page 97; *French Africa,* under FRANCE, pages 133–134; *Portuguese Africa,* under PORTUGAL, page 184; *South Africa,* under BRITISH EMPIRE, pages 95–97.

ALASKA

See under UNITED STATES, page 283.

1930 (*continued*).

Nov. 8. It is announced that the **United States recognizes the new Government.**

1931. *Aug. 21.* An **agreement** is made **with** the Federal Farm Board of **the United States to exchange** 25,000,000 hushels of **wheat for** 1,050,000 bags of **coffee.**

Oct. 8. A **sixty-day moratorium** on all commercial and private payments is decreed by President Vargas.

Oct. 17. The Government announces that for a period of three years, bond interest will be paid in scrip.

Oct. 19. Brazil offers to loan Uruguay an unlimited amount of wheat to tide over her shortage and also decrees duty-free entry for Uruguayan cattle.

Dec. 31. A **$20,000,000 credit guaranteed** by the government is extended by the Banco de Brasil **to the National Coffee Council.**

1932. *July 10–Oct. 3.* **Civil war** breaks out in **São Paulo province.** October 3, General Klinger-Holfer, the rebel commander, surrenders.

Oct. 27. A commission of thirty-one members is named to draft a new constitution.

Nov. 1. Seventy-five **leaders** of the São Paulo **revolt are deported.**

1933. *Aug. 21.* Armando Salles Oliveira becomes Governor of São Paulo Province.

Oct. 10. For Latin-American anti-war treaty, see ARGENTINE.

Oct. 30. **Brazil withholds a payment** of 9,419,187 gold francs **due on the French debt**, and announces no further payments will be made until France rescinds the tariff increases on imports decreed July 8.

Oct. 31. France retaliates by trebling her duties on all imports from Brazil.

Dec. 28. The Brazilian-Mexican Arbitration Treaty is signed at Rio de Janeiro.

Dec. 31. The Cabinet resigns.

THE BRITISH EMPIRE

THE development of the British Empire falls into two distinct periods. From 1600 to 1783 British influence was spread by means of the chartered commercial colonizing companies (the British East India Company being organized in 1600). During this period Great Britain acquired predominant influence in India, settled the Atlantic seacoast of the present United States, and won from France her possessions in Canada and the territory between the Allegheny Mountains and the Mississippi River. In addition, some settlements were acquired in the West Indies. Only in the English colonies on the Atlantic seacoast was there any measure of self-government, and even these colonies were subject to acts of Parliament, decisions of the judicial committee of the Privy Council, and instructions given to the Royal Provincial Governors. This period closed with the war of American independence, by which Great Britain surrendered to the United States all the territory east of the Mississippi River.

The second period extends from 1783 to the present, and includes the long war with France during which Great Britain acquired many of the French colonies, the Cape of Good Hope, and settled Australia. There was also an extension of British influence in Central and South America. Mindful of the lesson taught by the American revolutionists, Great Britain slowly altered her colonial policy until by the close of the nineteenth century a large measure of self-government, in theory subject to Parliament but actually almost uncontrolled, was extended to selected colonies and groups, the so-called dominions. In India measures were extended for native participation in the government under British supervision, while the less important colonies received an increasing share in the management of their affairs.

The present British Empire may be territorially classified as follows: (1) The British Commonwealth of Nations — this includes Great Britain herself, the Irish Free State, the Union of South Africa, Australia, New Zealand, and Canada. (2) The empire of India, which has a semi-autonomous government and which because of its population and importance is in a class by itself, and Newfoundland, Southern Rhodesia, and Malta where responsible government exists with some measure of British control. (3) Territories without complete self-government, the general administration of which is controlled by the Colonial Office. Some of these have colonial legislatures, the upper chamber of which is appointed, while the lower is elected (Bermuda, Bahamas, and the Barbados). In some like Ceylon, Cyprus, and Jamaica, the legislative assembly is of a single chamber which contains both appointed and elected members, with the elected members in the majority; in others like Hong Kong and Trinidad the appointed members are in the majority. In Gibraltar and a few others there are no legislative councils at all. This class of colonies is sometimes designated as Crown Colonies, although in some of them the Crown may not legislate by orders in council. (4) The protectorates and protected states. Especially important in this group are the native states of India, where the government is carried on by native rulers under the direction of a British official. (5) The Egyptian Sudan and the New Hebrides. In these territories the government is, strictly speaking, a condominium. In the Egyptian Sudan the government is shared by Great Britain and Egypt; in the New Hebrides by France and Great Britain. (6) The mandated territories which either Great Britain or her dominions govern under the grant and supervision of the League of Nations.

The present British Commonwealth of Nations developed from a series of colonial conferences, beginning in 1887 at the time of the Jubilee of Queen Victoria and continued at irregular intervals. An important step was taken at the meeting of 1907 by which the Colonial Conference was transformed into an Imperial Conference attended by the Prime Ministers of the self-governing dominions in conference with the cabinet of Great Britain. At the same time it was decided to hold regular periodic meetings and to organize a permanent secretariat. In 1911 it was agreed that the dominion governments should be informed and consulted concerning foreign policy, particularly those affected by international agreements. It was also decided to invite representatives of the dominion governments to attend the meetings of the Committee of Imperial Defense when questions affecting the dominions were under consideration; and the British Government offered to keep the dominion ministers resident in London constantly informed on questions of imperial policy.

During the war the British dominions voluntarily contributed contingents to the British forces, and as early as 1915 the dominion Prime Ministers began to take part in the discussions in the British Cabinet on the conduct of the war. The conference of 1917 declared that any readjustment of constitutional relations must be based on a "full recognition of the dominions as autonomous nations . . . and should recognize the rights of the dominions and India to an adequate voice in foreign policy and in foreign relations . . ." In the peace conference at Paris, Canada, Australia, South Africa, New Zealand and India were represented, and in the Assembly of the League of Nations the British Dominions are represented and are eligible to nonpermanent seats in the Council.

The conferences held in 1918 and 1921 made no important contribution to the constitutional development of the commonwealth, but with the recognition of Ireland as a self-governing dominion in 1921, and the victory of the Nationalist party in South Africa which frankly advocated independence, it was necessary to clarify and define the relationship between Great Britain and the dominions. This clarification was accomplished at the Imperial Conference of 1926 at which a committee under Lord Balfour submitted a report with this significant statement: "They (Great Britain and dominions) are autonomous communities within the British Empire, equal in status, in no way subordinate one to another in any aspect of their domestic or external affairs, though united by a common allegiance to the Crown, and freely associating as members of the British Commonwealth of Nations." The ninth Imperial Conference held in 1930 clarified some of the constitutional questions of nationality and the right of appeal to the Privy Council. In 1931 Parliament, by the statute of Westminster which was accepted by the dominion parliaments, gave the formal, legal completion of dominion independence and equality with Great Britain.

The method of settling imperial affairs by conference has been applied to special problems as well as to general imperial relations. Thus in 1930 and in 1932 Round Table Conferences were held in London to discuss the difficult problem of the government of India and its relation to Great Britain. In 1932 an economic conference was held at Ottawa, attended by representatives from Great Britain and the self-governing dominions. This conference resulted in a series of tariff agreements designed to establish a system of imperial protection which quite reversed Great Britain's historical policy of free trade.

GREAT BRITAIN AND IRELAND

Historical Outline

IN 1648 England was in the midst of civil war. The struggle between Charles I and Parliament was twofold in character. On the constitutional side it was an attempt to limit the power of the crown and to extend parliamentary government and its powers at the expense of royal prerogative. On the religious side, the attempt of the king to impose conformity to the doctrines and practices of the Church of England, as he and his advisers interpreted them, was opposed by the Presbyterians, who wished to establish their form of church polity, and by the Independents, who feared that the "new presbyter is but old priest writ large" and wished to make each congregation a self-governing body.

The Civil War resulted in the triumph of Parliament and the Independents under Oliver Cromwell, who with his Ironsides captured the king. The English Presbyterians united with the Scots against Cromwell and the "new-modeled" army, but were defeated, and all England was at the mercy of the Independents.

Their first step was to break up the Long Parliament, December 6, 1648. Colonel Pride drove the Presbyterian members out of the House of Commons — "Pride's Purge" —; thenceforth Independents controlled the legislature as well as the army. Charles I was tried and beheaded (1649) and the Commonwealth was established. That, too, proved weak and gave place to the Protectorate under the personal rule of Oliver Cromwell, backed by his invincible Ironsides. On Cromwell's death (1660) England, tired of military rule, returned to the constitutional form of government, and Charles II and the Stuart line were restored.

Charles II maintained an ignoble and corrupt court, but learned from his father's fate not to defy the power of Parliament openly. The Restoration, however, brought a reaction; many of the liberties for which the Long Parliament of Charles I had struggled were ignored not only by the king, but by Parliament itself. James II, who succeeded Charles (1685), was of a different type. Stubborn, where his brother had been yielding, he personally threatened civil liberty, and even sought to restore the Roman Catholic Church.

The result was the Revolution of 1688, by which James II was deposed and the Protestant William of Orange, and his wife Mary, the daughter of James, were placed upon the throne. This revolution (1688) meant more than a change of sovereigns; James II had claimed to rule by divine right, William III ruled in consequence of an act of Parliament. Thus, parliamentary sovereignty was definitely established. With the establishment of the power of Parliament the royal prerogative came more and more into the hands of the ministers, who were not responsible to the king. This power was based on control of Parliament, through the personal influence of the ministers as representatives of the landholding Whig nobles in the House of Lords, and their control of the House of Commons, which was practically designated by the same great Whig families.

In 1707, through the union of England, Scotland, and Wales, Great Britain was formed. Scotland sent forty-five members to the House of Commons and the Scottish peers chose sixteen out of their number to represent them in the House of Lords.

On the Continent Louis XIV was attempting to expand his dominion. William III found it easy to bring England to the support of a rivalry which lasted for two centuries. Whichever side France espoused, England was obliged to oppose her. In the War of the Spanish Succession, the War of the Austrian Succession, and the Seven Years' War (1756–63) England headed a grand alliance to prevent the establishment of an overwhelming empire in Europe and to protect her own institutions. The struggle encircled the world. The vast French empire of India fell to England as part of the prize of victory. The English and French colonists in America fought the battles of their parent states, and by England's victory France was eliminated from North America in 1763.

From 1689 on, the supremacy of Parliament was unquestioned. In 1715 the royal veto became a formality. With the exception of the ill-starred attempt of George III to establish personal rule, no British sovereign has since questioned the sovereign power of Parliament. The changes in the English constitution have been not so much in the nature of amendments, though great remedial acts and statutes have registered the growth of new forces. The growth of the English constitution is through customs which determine how the power of the state shall be exercised. The whole tendency of these customs has been to subject the power of the crown to the control of the ministers, who in turn are responsible to the House of Commons, which represents the political sovereignty of the people, that is, of the voting classes.

The reign of William III vindicated the sovereignty of Parliament; that of Anne (1702–14) saw the beginnings of the establishment of the cabinet system. During the reigns of George I and George II, both of whom were foreigners who understood little and cared less for English institutions, the cabinet became supreme. The ministry of Walpole (1721–42) was an uninterrupted rule of the Whigs, who had departed from their original principles of opposition to the absolutism of Charles II and James II and themselves had become aristocratic and corrupt. During the reign of George III, who at first imitated Walpole in control of the House of Commons, the constitutional principle was at last established, under William Pitt, that a minister might demand an election in case of an adverse vote in the House of Commons. Thus the parties became the instruments of popular sovereignty.

After the transference of the French colonial empire to England, Great Britain attempted to enforce a mercantile system on her vast colonial empire. The colonies, although fostered and encouraged to produce what Great Britain lacked, were prevented from competing with each other and the mother country. The English colonists in America resisted this English control of their economic development

GREAT BRITAIN
NORTHERN IRELAND
AND THE
IRISH FREE STATE
Scale of Statute Miles
0 25 50 75 100 150
Kilometers
0 25 50 100 150
ATLANTIC OCEAN
NORTH SEA
SHETLAND ISLANDS
MAINLAND
ORKNEY ISLANDS
HEBRIDES
SCOTLAND
GREAT BRITAIN
ENGLAND
WALES
NORTHERN IRELAND
IRISH FREE STATE
Irish Sea
English Channel
FRANCE
Edinburgh
Glasgow
Dublin
London
Liverpool
Manchester
Birmingham
Belfast
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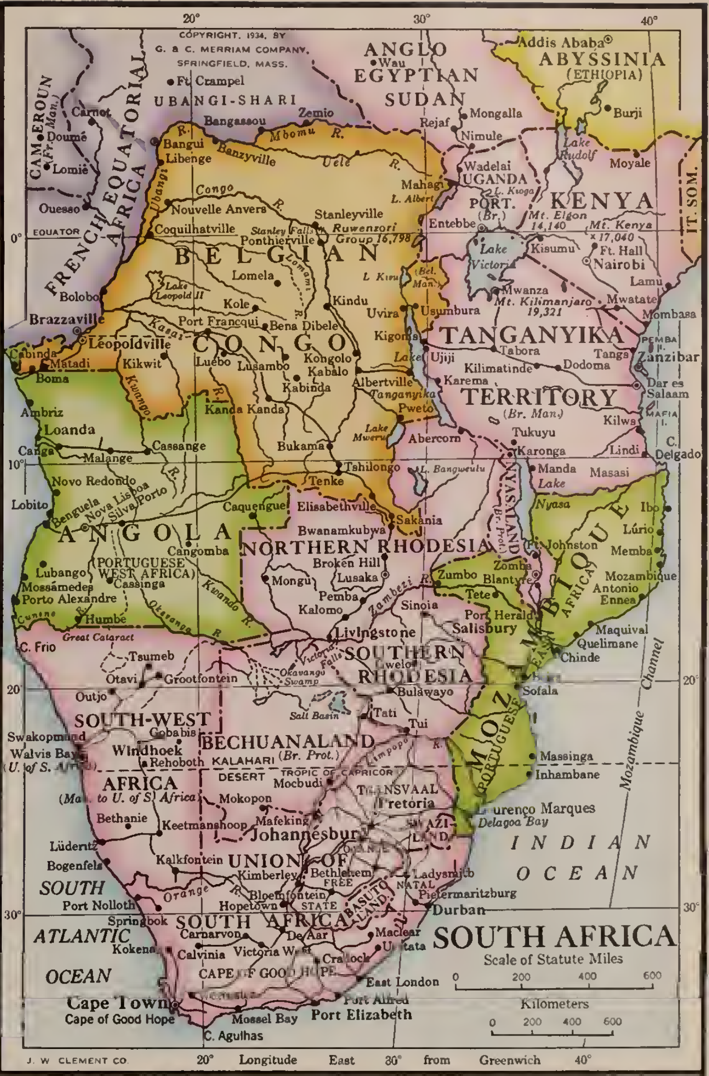
Longitude West from Greenwich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SPRINGFIELD, MASS.
ANGLO EGYPTIAN SUDAN
ABYSSINIA
(ETHIOPIA)
UBANGI-SHARI
FRENCH EQUATORIAL AFRICA
CAMEROUN
BELGIAN CONGO
UGANDA
KENYA
TANGANYIKA TERRITORY
ANGOLA
(PORTUGUESE WEST AFRICA)
NORTHERN RHODESIA
NYASALAND
SOUTHERN RHODESIA
MOZAMBIQUE
PORTUGUESE EAST AFRICA
SOUTH-WEST AFRICA
BECHUANALAND
TRANSVAAL
UNION OF SOUTH AFRICA
ORANGE FREE STATE
BASUTOLAND
NATAL
CAPE OF GOOD HOPE
SOUTH ATLANTIC OCEAN
INDIAN OCEAN
Cape Town
Johannesburg
Leopoldville
SOUTH AFRICA
Scale of Statute Miles
0 200 400 600
Kilometers
0 200 400 600
J. W. CLEMENT CO.
Longitude East from Greenwich

AFGHANISTAN
PERSIA
BALUCHISTAN
TIBET
CHINA
NEPAL
BHUTAN
INDIA
BURMA
SIAM
FRENCH INDO-CHINA
BRITISH MALAYA
FEDERATED MALAY STATES
CEYLON
OMAN
Arabian Sea
Bay of Bengal
INDIAN OCEAN
TROPIC OF CANCER
Delhi
Bombay
Calcutta
Madras
Kabul
INDIA
Scale of Statute Miles
0 200 400 600
Kilometers
0 200 400 600
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CANADA
AND
NEWFOUNDLAND
Scale of Statute Miles
0 100 200 300
Kilometers
0 100 200 300 400
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BUFFALO N Y.
Longitude West from Greenwich
ARCTIC OCEAN
Beaufort Sea
GREENLAND
BAFFIN BAY
ATLANTIC OCEAN
PACIFIC OCEAN
HUDSON BAY
Hudson Strait
Foxe Channel
Davis Strait
DISTRICT OF FRANKLIN
BAFFIN ISLAND
VICTORIA ISLAND
DISTRICT OF MACKENZIE
NORTHWEST TERRITORIES
DISTRICT OF KEEWATIN
YUKON
ALASKA
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
QUEBEC
LABRADOR
NEWFOUNDLAND
NOVA SCOTIA
NEW BRUNSWICK
UNGAVA PENINSULA
GASPE PENINSULA
GULF OF ST LAWRENCE
ROCKY MOUNTAINS
COAST MOUNTAINS
UNITED STATES
Great Bear Lake
Great Slave Lake
Lake Winnipeg
L. SUPERIOR
L. MICHIGAN
L. HURON
L. ERIE
L. ONT.
ARCTIC CIRCLE
Edmonton
Calgary
Regina
Saskatoon
Winnipeg
Toronto
Ottawa
Montreal
Quebec
Halifax
Vancouver
Seattle
Detroit
Buffalo
Boston
Minneapolis
St. Paul

1931 (*continued*).
an estimated surplus of £1,400,000 ($7,000,000).

Sept. 15–17. As a result of the proposed cut in naval pay, demonstrations and a small mutiny occur in the British fleet mobilized for the autumn maneuvers in the North Sea.

Sept. 15–Dec. 1. The **Round Table Conference on Indian affairs is held in London.**

Sept. 15. Gandhi announces at the Round Table Conference that India will demand equality with Great Britain.

Sept. 21. **Great Britain suspends gold payment.**

Sept. 29. The executive committee of the Parliamentary Labor party presents its platform for the forthcoming election, assailing tariff, advocating nationalization of land and the coal industry, demanding debt revision, protesting against the reduction of the unemployment benefits, condemning the reduction of the amount appropriated for social services and opposing the return to the gold standard.

Oct. 27. In the **general election,** the Conservatives gain 471 seats, the Liberals 68, the Labor party (National) 13, others 2. The government has the support of 554 members.

Nov. 1. The Bank of England repays £20,000,000 ($100,000,000) of the £50,000,000 ($250,000,000) credit granted last August by the Bank of France and the Federal Reserve Bank of New York.

Nov. 5. The membership of the National Cabinet includes four Laborites with Ramsay MacDonald as Prime Minister, 11 Conservatives with Stanley Baldwin, Lord President of the Council, and Neville Chamberlain, Chancellor of the Exchequer, 5 National Liberals with Sir Herbert Samuel as Home Secretary, Sir John Simon, Foreign Secretary, and Walter Runciman, President of the Board of Trade.

Nov. 20. Acting on the authority of a bill to protect British manufactures and prevent dumping, the Board of Trade orders a 50 per cent tariff on 23 articles.

Dec. 1. The **Round Table Conference on India is adjourned** by Ramsay MacDonald who reiterates the pledge of the Government that India will eventually obtain Dominion status but until this is accomplished, Great Britain must reserve some measure of control over Indian finance, defense, and external relations. The Conference failed to solve the Communal representation question for the protection of minorities. Mahatma Gandhi, who during the Conference demanded complete independence, left with a threat of the possible resumption of civil disobedience through passive resistance.

Dec. 10. The policy of the National Government in regard to India is overwhelmingly ratified by the House of Commons on December 3 and by the House of Lords on December 10.

Dec. 30. Great Britain invites representatives from ten nations to meet at Lausanne on January 18 to consider the question of German reparations.

1932. *Jan. 12.* At the final meeting of the **Round Table Conference on Burma,** which was assembled November 27, the Prime Minister declares that Great Britain is prepared to allow the **question of separation from India to be decided by a general election in Burma** and to grant a constitution providing for a large measure of local autonomy.

Jan. 22. Because of the inability of some of the Labor and Liberal members of the Cabinet to accept the tariff proposals, it is agreed that unanimity in the Cabinet is not necessary and that the Labor and Liberal members may oppose the Cabinet's proposals in the House of Commons.

Feb. 4. A resolution introduced into the House of Commons provides that, on March first, **a tariff duty** of 10 per cent *ad valorem* **will be levied;** a free list, including wheat, meat, fish, raw cotton, wool, and other commodities is established.

Feb. 25. The tariff bill imposing a ten per cent duty on most imports is passed by the House of Commons.

March 23. Great Britain warns the Irish Free State that the treaty with the provision for the oath cannot be altered except by common consent.

March 31. The fiscal year closes with the surplus of $1,383,200.

April 6. For the conference on the Danubian States, see Security vs Revision, page 52.

April 19. The **budget for 1932–1933** is introduced with no provision for payment of the British debt to the United States or to stimulate receipts from countries owing to Great Britain. The tax on tea is restored and it is planned to borrow $570,000,000 to prevent fluctuations in exchange.

April 25. According to the recommendation of the Import Duties Advisory Committee, the tariff is increased on the average of twenty per cent. Duties on many luxuries and steel are increased from 30 to 33⅓ per cent.

May 11. Secretary Thomas announces that Ireland will lose tariff preferences if the oath is abolished.

June 30. The Irish Free State defaults on its annuities.

The Chancellor of the Exchequer announces that the Government will convert the five-per-cent war loan into three and one-half per cent.

July 7. The **Government** announces that it is **willing to reduce the size of ships and caliber** of guns by one third, and to prohibit air bombing, gas warfare, and mobile land guns.

July 8. The House of Commons adopts a measure to allow the Government to double the duties on Irish imports.

July 12. The British government imposes a twenty-per-cent tariff duty on Irish agricultural produce.

July 13. The text of the **Anglo-French accord** is presented to the House of Commons. It provides for mutual consultation with regard to debts, economic conditions, disarmament, and co-operation with each other and interested governments, and a pledge to avoid discrimination by one country against the interests of the other.

July 21–Aug. 7. For Ottawa Conference, see Canada.

Sept. 28. Lord Snowden, Sir Herbert Samuel, and Sir Archibald Sinclair, Liberal members of the Cabinet, resign because of the Government's attitude toward the Ottawa agreement.

Sept. 30. It is announced that the conversion scheme is ninety-two per cent successful.

Oct. 18. Arthur Henderson resigns the leadership of the Labor party in the House of Commons. It is announced that Great Britain has given the Soviet government the six months notice necessary to terminate the trade treaty.

Oct. 23–Nov. 2. **Unemployed march to London,** presenting a petition to the Commons. Disorder and riots are stirred up by the hoodlum element in London.

Nov. 7. The majority of the royal commission on unemployment insurance uphold the system of the dole.

Nov. 11. For British notes on debt, see the United States.

Nov. 17–Dec. 23. The **Indian Round Table Conference** is held in London slightly amending the previous proposals for a federal state. The suffrage is widely extended and the communal question settled.

Dec. 15. After unsuccessful representations to the United States, **Great Britain pays the December installment on her debt.**

1933. *Feb. 27.* The House of Commons announces an embargo on the export of munitions to Japan and China.

March 13. The embargo on arms shipments to China and Japan is discontinued.

April 5. A bill authorizing the government to impose an embargo on Russian trade because of the trial of the four British engineers is passed in the House of Commons and put into effect April 26. (See Russia for reprisals.)

April 24. A trade agreement is signed with Denmark giving preference to Danish agricultural products in return for preferences on British steel, coal, and iron goods.

April 25. The **budget** is introduced providing for £698,000,000 revenue but no appropriation for payment of the U. S. debt. Income taxes remain the same but the excise on beer is reduced.

April 27. Trade agreements are negotiated with Argentina and Germany.

June 12–July 27. World Economic Conference held in London. (See Economic Reconstruction, page 49.)

June 28. The Central Conservative Council endorses Stanley Baldwin's support of the government's Indian policy.

July 1. Embargo on Russian goods is revoked on the release of Thornton and MacDonald, the British engineers who were convicted and sentenced in April.

July 19. The government offers to convert the twenty year, five and one-half per cent, gold loan raised in United States at the rate of $3.85.

July 27. It is announced that the Imperial Council of Great Britain and their Dominions have decided that until the world currencies are stabilized on a gold basis the pound, independent of either gold currency or the dollar, be the monetary unit of the Empire.

Aug. 21–25. Twenty-one nations hold a **conference** in London **on the overproduction** of wheat and agree to limit the exports from August 1, 1934, to July 1, 1935.

Sept. 30. Financial statement of half-yearly revenue returns shows a gain of £7,208,534 over the same period in 1932, and a reduction of £48,308,776 in the September 30 deficit. This is asserted to be due to tariffs, better business throughout the country, drastic economies and a steady reduction in unemployment.

Oct. 4. The British Labor party unanimously votes to adopt a general strike if necessary to prevent hostilities in any future war except of actual defense; October 5, votes to boycott German goods and to assist German refugees.

Oct. 6. Following Germany's rejection of three-power disarmament proposals, Stanley Baldwin declares the Locarno Treaty will be strictly enforced by Great Britain.

Oct. 31. The Exchequer announces a deficit of £58,930,059, the smallest in years.

Nov. 2. **Returns from municipal elections** give the Labor party 206 additional seats.

Nov. 7. It is announced that Great Britain on December 15 will make a "token" payment of $7,500,000 in American currency on her war debt to United States.

Great Britain withdraws from the tariff truce as a protection against the persistent depreciation of the dollar.

Nov. 9. Prime Minister MacDonald appeals to Germany to re-enter disarmament negotiations.

Nov. 16. It is announced that Foreign Secretary Sir John Simon will be sent to Geneva to discuss disarmament concessions to Germany.

Nov. 23. The Government warns France that if the 15% tax on imports from Great Britain is not abolished the British government will levy an equivalent duty on French goods.

Nov. 27. Stanley Baldwin, Lord President of the Council, proposes a Paris-Berlin talk on Germany's status, and offers British aid to reach an agreement on armaments.

Dec. 11. It is announced that **negotiations for the joint stabilization of the dollar and the pound** have been **abandoned** because the British authorities oppose the fixing of the value of the pound above $4.50.

Dec. 15. The House of Lords unanimously decides that the coupons of a Belgium company are payable on the gold rather than currency basis.

Dec. 18. The Minister of Labor announces that the **number of unemployed has decreased** nearly 500,000 in 1933 and that the number of insured employed persons has increased 557,000.

Dec. 19. Lord Salisbury introduces a bill to reduce the House of Lords to 150.

Dec. 20. Prime Minister MacDonald announces that with government aid the British Museum has acquired the **Codex Sinaiticus manuscript** of the Bible for £100,000 from the Soviet government.

Dec. 26. It is announced that the deficit for the year would be £94,000,000, as compared with £159,000,000 in 1932.

BRITISH COMMONWEALTH OF NATIONS, COLONIES, PROTECTORATES, AND DEPENDENCIES

EUROPEAN DOMINION AND DEPENDENCIES

ISLE OF MAN

The Isle of Man is a small island in the Irish Sea, which is administered in accordance with its own laws by a governor and legislative council appointed by the crown. The representative assembly, known as the House of Keys, consists of 24 members chosen for five years. The island is not bound by acts of Parliament unless specially mentioned in them.

The principal **products** of the island are oats, barley, turnips, and potatoes. There are small deposits of lead, zinc, and salt.

The **area** of the island is 221 square miles, and the **population** is 49,308 (1931).

CHANNEL ISLANDS

The Channel Islands are a group of small islands off the coast of France, of which Jersey, Guernsey, Alderney, and Sark are the most important. They are administered according to their own laws, and acts of Parliament do not apply unless the islands are specially mentioned. They are governed by officials appointed by the crown and representative assemblies.

The **chief industry** is agriculture and cattle raising, for which the islands are famous.

The **area** is 75 square miles and the **population** 93,061 (1931).

GIBRALTAR

Gibraltar is a rocky area of nearly two square miles at the extreme southern point of Spain with a population (1931) of 21,372. It was seized by the British in 1704 and though enduring many sieges since, notably in 1782, it has never been retaken. Nature and the most persistent care and skill have rendered it one of the strongest fortresses in the world. It is also a naval base with a harbor of 260 acres. It is administered as a crown colony under a governor, who is at the same time military commander in chief. The governor is assisted by an Executive Council established in 1922 by letters patent.

MALTA

Malta, an island south of Sicily, was granted to the Knights of St. John in 1530 after their expulsion

from Rhodes, and in 1565 successfully withstood a long siege by the Turks. It surrendered to Napoleon in 1798, passed to the British in 1800, and was formally annexed to the British crown in 1814. It is one of the most important ports of call in the world and is the naval base for the British Mediterranean fleet. Valletta is the chief town and port.

In 1921, letters patent established a legislature for local affairs consisting of a senate (partly nominated), an elected assembly, and a responsible ministry. The **chief products** are wheat, barley, potatoes, onions, vegetables, grapes and fruits.

The **area** is 95 square miles (with the neighboring islands, 122 square miles) and in 1931 the **population** was 244,000.

Chronology

1921. *June 15.* Letters patent, promulgated April 30, establish a **dominion form of government.**

Nov. 1. The Maltese **Parliament,** based on self-government, is **opened** by the Prince of Wales.

1924. *Aug. 18.* A **coalition government** has been formed under Signor Mizzi.

1930. *May 23.* An attempt is made to assassinate Lord Strickland, Prime Minister, the center of the Church and State controversy.

May 31. A **protocol is signed between Great Britain and the Vatican** in an effort to develop a treaty to regulate ecclesiastical and political affairs in Malta.

June 24. The House of Commons decides on a **temporary suspension of the Constitution of Malta,** and postponement of elections due to the Vatican dispute.

1931. *June 4.* Sir David Campbell is appointed Governor-General.

1932. *Feb. 11.* The **royal commission** appointed by Prime Minister MacDonald to investigate conditions on Malta **recommends that Malta be returned to a parliamentary form of government** by the restoration of the constitution and that general elections be held.

June 15. In the first general elections since 1927, the Maltese Nationalist party wins a majority in both houses.

June 21. Sir Hugo Mifsud, leader of the Nationalists, forms a Cabinet to succeed the government of Lord Strickland, which was defeated.

July–December. Serious trouble develops over the question of Italianizing the schools.

1933. *Nov. 2.* Malta ministry favors Italianization of the schools, but British government does not approve; Governor Campbell demands favorable action by British government, but is refused; serious disturbances result in **suspension of the Constitution; Malta** reverts to the status of a **crown colony.**

THE IRISH FREE STATE

On January 7, 1922, the Dail Eireann ratified the peace treaty with England, and Arthur Griffith became president of the Dail in place of de Valera, resigned. The Dail organized itself for the task of conducting a provisional form of government. The Constitution for the Free State of Ireland was ratified by a new Dail. On December 6th, Timothy Healy, appointed governor-general by the Crown, and the members of the Dail took the prescribed oaths. Southern counties of Ireland thus became an organized self-governing Dominion within the British Empire.

The Government of the Irish Free State was constantly thwarted and hampered by the opposition of the party led by de Valera, who organized a skeleton government known as the Irish Republic and enlisted a guerrilla force known as the Republican Army. The result was a mild civil war; sections of some of the more important towns were occupied by the Republicans at various times; buildings and property were destroyed; and all attempts at a peaceful compromise for a long time failed. In the autumn of 1922 the Free State authorities adopted a sterner policy of repression and execution of rebels which, by July, 1923, resulted in the pacification of Southern Ireland. The authorities began to release the prisoners and the Irish elections in August, passing off quietly, resulted in the continued support of the Government. Although disorders decreased, permanent satisfaction was not at once secured, because of the position of Ulster (Northern Ireland) in refusing to assent to the proposed boundary between it and the Irish Free State. The British Parliament with the consent of the Dail amended the Irish Treaty and appointed the representative for Ulster which Ulster herself refused to choose.

After nearly a year's deliberation, the work of the Boundary Commission was superseded by a direct agreement between Great Britain and the two Irish governments on the basis of the *status quo*, which was duly ratified despite the opposition of Sinn Fein. With the authority of the Dail satisfactorily established, the economic development of the country became the main concern of both Northern and Southern governments.

The year 1927 saw the return of the Fianna Fail party to active participation in politics, and in the elections of June and September it nearly succeeded in defeating the Government party. Its leader, Eamon de Valera, and his followers took the oath of allegiance and were seated in the Dail. The Government under President Cosgrave continued, however, to hold the confidence of the Dail by a narrow margin.

In 1932 the Fianna Fail party with its ally the Labor party gained control of the Dail. De Valera became President and selected a cabinet from the Fianna Fail party. He announced a strong nationalistic policy looking towards complete independence from Great Britain and union of northern and southern Ireland. De Valera advised the king to call for the resignation of the Governor-General, and to appoint Donal Buckley, a former Sinn Feiner, as Governor-General. De Valera claimed that, since under the statute of Westminster (see British Empire) Ireland had legislative independence, it could amend its own constitution by repealing the oath of allegiance to the king, by preventing appeals to the Privy Council, and also by refusing to continue the payments on the land annuities. This policy provoked retaliatory duties on the part of Great Britain, which led to reprisals on the part of the Irish Free State, disrupted the natural trade with Great Britain, and forced heavy taxation in the Irish Free State. In 1933 de Valera appealed to the country and his party was returned with a majority of one vote.

Organization

Government. The constitution adopted October 25, 1922, provides for a bicameral legislature, the Oireachtas, consisting of a chamber of deputies (Dail Eireann) of 153 members chosen by proportional representation on universal suffrage, and a senate (Seanad Eireann) of 60 members. In the first senate 30 members were elected by the Dail Eireann and 30 nominated by the President of the Executive Council. Of these appointed members 15 hold seats for 12 years and 15 for 6 years. The term of office for the elected members is 9 years, one third retiring every 3 years. Senators are elected by a joint session of Dail Eireann and the Senate, voting on the principles of proportional representation. The Executive Council or cabinet is responsible to the Dail and consists of not more than twelve nor less than five ministers.

Religion and Education. The Irish Free State is overwhelmingly Roman Catholic, although other sects are tolerated. Elementary education is free and given by the national schools, of which there are about 5,000 with over 500,000 enrolled pupils. Secondary education is under private control, in many cases by religious orders. The University of Dublin (Trinity College), founded in 1591, has 1,400 students. The National University of Ireland, founded in 1909, with the three constituent colleges, Cork, Galway, and Dublin, has nearly 2,000 students enrolled.

Industry and Labor. The Irish Free State is predominantly agricultural. Its chief exports in 1931 in order of importance were cattle, porter, beer and ale, eggs, pigs, butter and other agricultural products. With the establishment of the Free State, attempts were made to increase manufacturing, and motor tractors and motor car parts ranked highest of the manufactured articles; textile exports ranked next.

Defense. Enlistment in the Irish Free State army is voluntary, and in 1932–33 the strength was 5,500 with a reserve of about 8,000.

For area and population, see page 000.

Chronology

1921. *Dec. 6.* **Agreement** signed by British and Irish envoys, **establishing the Irish Free State,** with a position similar to that of Canada, Australia, New Zealand, and South Africa. The members of the Irish Parliament are to take an oath of allegiance to the constitution of the Irish State, to be faithful to His Majesty George V and his heirs. Ireland is given full control of finances, trade, and land forces. Naval forces reserved.

1922. *Jan. 7.* The **Dail Eireann ratifies the peace treaty** by a vote of 64–57. Eamon **de Valera resigns** as president of the Irish Republic.

Jan. 10. **Arthur Griffith** is elected **president** of the **Dail Eireann,** and a provisional government is set up until a general election is held.

Jan. 14. Parliament for **Southern Ireland** meets and **ratifies the treaty** with Great Britain. Arthur Griffith, president of the Dail, refuses to become head of the provisional government and **Michael Collins** is chosen in his place.

Feb. 8. **Riots and disorders** begin along the border of Ulster. Sinn Feiners kidnap several hundred men in Ulster.

Feb. 12. **De Valera** opens the campaign against the provisional government in Dublin.

March 15. **De Valera** organizes **Republican Association** to oppose ratification of Irish Treaty.

March 16. **Disorders,** guerrilla fighting, and terrorization rife both in Southern Ireland and along the Ulster border.

March 26. **Insurgents** of the Irish Republican Army **set up a government** in opposition to the provisional state.

April 2. More than 3,000 **members of the army** of the provisional government **defy the Free State** commands, and take an oath of allegiance to the Republic, renouncing the authority of the Dail.

April 14. Three hundred armed adherents of the anti-treaty party seize the Four-Courts Building and the Four-Courts Hotel in Dublin.

April 24. All **Southern Ireland** joins **in a one-day strike** as protest against militarism.

May 20. An **agreement** is reached **between** Michael **Collins and** Eamon **de Valera** calling for an election in June and providing for a coalition ministry.

June 15. The draft of the **constitution** of the Free State **of Ireland** is published. This follows the Canadian model. It provides for universal suffrage and a responsible ministry.

June 16. Irish Free State holds an **election to choose a parliament** as provided for by the treaty with Great Britain. The final count shows 58 in favor of the treaty, 36 opposed: — Labor 17, Farmers 7, Independents 6, Trinity College 4. With the exception of Labor, all minor parties favor the treaty.

June 30. The Free-State forces succeed in capturing the Four-Courts Building, which was seized and occupied by the Republican adherents.

Aug. 12. **Arthur Griffith,** president of the Dail Eireann, **dies** in London.

Aug. 22. **Michael Collins,** commander in chief of the Free-State forces and one of the signers of the Peace Treaty with England, is **shot** and killed near Bandon, County Cork.

Sept. 9. The **Irish Parliament** (Dail Eireann) meets and **elects** William **T. Cosgrave president.** Richard **Mulcahy** is **appointed Minister of Defense,** Desmond Fitzgerald, Minister of Foreign Affairs, Kevin O'Higgins, Minister of Home Affairs, Ernest Blythe, Minister for Local Government, Prof. John MacNeill, Minister of Education, J. J. Walsh, Postmaster-General, and Edmund Duggan and Finian Lynch, Ministers without Portfolio.

Oct. 6. The Irish government issues a proclamation offering **full amnesty to all offenders** who surrender their arms by October 15.

Oct. 10. A pastoral letter is issued by the hierarchy of the Roman Catholic Church denying the sacraments to the rebels and forbidding under the penalty of suspension any priest from advocating the doctrines of rebellion and insurrection.

Oct. 16. Since the **offer of amnesty is ignored,** the Free State sets up **military courts** to punish persons bearing arms illegally.

Oct. 25. The new Irish **constitution is ratified** by the Dail Eireann.

Nov. 6. **De Valera issues a statement** declaring that "Victory for the Republic or utter defeat and extermination are the only alternatives."

Nov. 24. **Erskine Childers is executed** as the result of trial by court-martial.

Dec. 6. Governor-General **Healy and the members of the Dail take the oath** and constitute the government of the Dominion of the Irish Free State. President Cosgrave announces the ministers.

Dec. 7. **Ulster** votes for exclusion of six northern counties from the Irish Free State.

Dec. 30. President Cosgrave offers peace to the **Republican rebels** only through law.

1923. *Jan. 9.* Irish **Parliament reconvenes.**

March 13. Seven Irish irregulars are executed. Total number of **executions to date** is **63.**

April 13. The **first Free-State budget** is introduced in the Dail. Estimates for expenditures show that £46,500,000 must be found, of which more than one half is for the army and compensation. Receipts are estimated at £20,500,000 from taxes and £6,000,000 from nontax revenue, leaving a deficit of £20,000,000.

April 20. The **Irish Free State applies for membership in the League of Nations.**

July 5. **Governor-General Timothy Healy announces that Ireland is tranquil** and that it is releasing prisoners. He complains that the Belfast authorities are detaining Free-State sympathizers and that Northern Ireland refuses to appoint the Boundary Commission.

Aug. 27. **Irish elections** pass off quietly. The Government wins 60 seats out of 111, the Republicans 39 or 40. De Valera is elected.

Sept. 10. Irish Free State admitted to membership in the **League of Nations.**

Sept. 19. William T. Cosgrave is re-elected president by the new Dail.

Oct. 3. Governor Healy **opens the Irish Parliament,** outlining an extensive legislative program.

Dec. 22. Four hundred prisoners are released from the detention camp at Newbridge.

1924. *April 25.* The **budget** submitted to the Dail Eireann provides for a reduction in annual expenditures of more than £13,000,000. Of this sum £7,000,000 is cut from the army estimate, £3,000,000 from education.

EXAMPLES OF BRITISH GOVERNMENT BUILDINGS

1. HOUSE OF PARLIAMENT
OTTAWA, CANADA

2. PARLIAMENT BUILDING
CAPE TOWN, SO. AFRICA

3. HOUSES OF PARLIAMENT
LONDON, ENGLAND

4. UNION BUILDING
PRETORIA, SO. AFRICA

5. PARLIAMENT HOUSE
CANBERRA, AUSTRALIA

6. HOUSE OF PARLIAMENT
SYDNEY, N. S. W.

7. INDIAN CAPITOL
NEW DELHI, INDIA

8. PARLIAMENT BUILDING
WELLINGTON, N. Z.

9. LAW COURTS BUILDING
JOHANNESBURG, SO. AFRICA

lished with a governor appointed by the Crown and a Legislative Assembly with a responsible ministry. The Legislature may amend the constitution by a two-thirds vote, but the Crown reserves the right to disallow all laws.

Chronology

1922. *Nov. 6.* Southern Rhodesia (named for Cecil Rhodes) votes not to join the Union of South Africa.
1923. *Oct. 3.* Sir John Chancellor becomes governor.
1924. *May 4.* The general election in Southern Rhodesia results in an overwhelming majority for the Government. The Labor parties fail to secure a single representative.
1928. *Sept. 21.* The Rhodesian party wins 22 seats, the Progressives 4, the Labor 3, and Independents 1 in the general elections.

SWAZILAND

Swaziland is situated at the southeastern corner of the Transvaal. It is under the control of the British government. This control is exercised by the high commissioner for South Africa. Its agricultural crops are corn and tobacco. The territory is rich in minerals and in 1931 the output of tin was valued at about $44,000. The **area** is 6,705 square miles and the **population** (1931) 123,000.

UNION OF SOUTH AFRICA

The Union of South Africa, established by act of Parliament, September 20, 1909 (actually united May 31, 1910), consists of the four self-governing colonies of the Cape of Good Hope, Natal, Transvaal, and Orange Free State. The British sovereign appoints a governor-general, on the advice of the Premier of the Union, who in turn designates an executive council of ministers responsible to the South African Parliament.

The wisdom of the British policy in establishing self-governing dominions was justified by the responsibility of the Union during the World War. In October 1914 several parties of the Boers, influenced by German intrigue, revolted but were speedily suppressed by General Botha and a combined force of Dutch and British. In the next year the Union forces under Botha successfully invaded German Southwest Africa; and by the treaty of peace the Union received the mandate of that area. In the same year a general election was held which resulted in the triumph of the parties supporting Botha over the Nationalists and Dutch led by Hertzog, who opposed the war and all British connections. In 1916 General Smuts successfully invaded German East Africa, which became a British mandate under the title of Tanganyika Territory. Shortly after, General Smuts was called to England where he became a member of the British imperial war cabinet, and represented South Africa at the conference at Paris which framed the Treaty of Versailles.

In the first election after the War General Smuts, now heading the South African party, was successful in his opposition to the Nationalists, who claimed the right of secession from the British Empire and expressed opposition to closer union. In 1924, however, he was defeated by General Hertzog and the Nationalist party, who adhered to the right of secession but asserted that as far as the Union was concerned such secession would be a grave mistake. The reorganization of the British Empire under the British Commonwealth and the Statute of Westminster did much to allay the separatist feeling in South Africa, although the Union has adopted a flag of its own and has not always co-operated with Great Britain in her foreign and financial policy.

The peace of the Union has at times been threatened by serious labor strikes, particularly in 1922, and the problem of the treatment of the natives and the East Indian immigrants has been a difficult one.

Government. The legislative power is vested in a Parliament consisting of a Senate and a House of Assembly, which may be summoned or prorogued by the governor-general; and the Assembly may be dissolved and new elections called.

The Senate consists of 40 members, of whom eight are nominated by the governor-general and 32 elected, eight for each province. The senators must be British subjects of European descent, of thirty years of age, and possessing property to the value of $2,500. The House of Assembly consists of 148 members; 58 for the Cape of Good Hope, 17 for Natal, 55 for Transvaal, 18 for Orange Free State. Members must be British subjects of European descent, and resident five years in the Union.

Each province is governed by an administrator appointed nominally by the governor-general of South Africa, actually by the ministry for the time being, and by a provincial council, elected for three years, which has authority to deal with finance, education, charity, municipal institutions, local works, and other matters delegated to them.

Religion and Education. The majority of the white people (921,900) are adherents of the Dutch Protestant churches. There are over 311,000 Anglicans, 105,000 Wesleyans, 79,000 Presbyterians, 71,000 Roman Catholics. Education other than higher education is in the control of the provinces; the federal department of education is concerned with ten universities and colleges, at which there are 6,682 students.

Industry and Production. In agriculture, wheat has been increasingly cultivated and the crop of 1930 was estimated at 462,880,000 lbs. The corn crop for the same year was estimated at 173,940,000 lbs. The production of cheese and butter is also important, and there are vast herds of cattle and flocks of sheep and goats. The production of wool for 1930 was 249,442,060 lbs., and of mohair 7,019,082 lbs. The growth of cotton is being undertaken with great success. Tobacco and tea are also produced.

The chief source of the country's wealth, however, is gold and diamond mining. The total production of diamonds in South Africa up to the end of 1931 is given as about $18,212,000, and of gold $4,570,000,000. It is estimated that the Union contains 56 billion tons of coal. Other valuable mineral products are copper and tin.

Defense. The defense forces are divided into the permanent force and the active citizen force. There is also a coast garrison force, a citizen reserve force, the royal naval volunteer reserve, and special reserves. South Africa furnished 150,000 troops to the British forces in the World War, of which 70,000 went overseas.

For area and population, see page 304.

PROVINCES OF THE UNION

CAPE OF GOOD HOPE

The colony of the **Cape of Good Hope** was originally founded by the Dutch in 1652. Great Britain occupied it from 1795 to 1803 and again from 1806 until 1814, when it was formally ceded to Great Britain. It had a responsible government from 1872 to 1910 when it formed one of the original provinces of the South African Union. It is divided into 125 administrative districts, and there are 128 municipalities and 70 village-management boards. The area is 276,966 sq. miles; the European population (1931) was 744,000. There were 678,309 Christians. Education is compulsory for children of European extraction, and there were 142,967 European pupils and 211,197 non-Europeans.

Production and Industry. The majority of the diamonds produced in South Africa come from Cape of Good Hope Province.

NATAL

Natal was annexed to Cape Colony (now Cape of Good Hope Province) in 1844, given a separate government in 1845, and responsible government in 1893. The province of Zululand was annexed to Natal in 1897. In 1910 Natal became one of the provinces of the Union of South Africa. It has a seaboard of about 360 miles. The climate is well suited to Europeans, being semitropical on the coast and somewhat colder inland.

Education. The province maintains 196 primary, intermediate, and secondary schools, with various special schools. In 1930 there were 26,332 Europeans attending the government and inspected schools, and 66,113 colored children receiving education.

Production and Industry. There are vast sugar plantations on the coast of Zululand, which in 1928–29 produced 295,934 tons, while tea and cereals of all kinds grow abundantly. Natal has a small gold production. Its coal production in 1931 was over $183,170,000. The whaling industry is also important.

The **area** of Natal (including Zululand, which is 10,427 square miles) is 35,284 square miles. The European **population** (1931) was 177,424.

TRANSVAAL

The Transvaal was colonized by the Boers in 1836–37, and its independence was recognized by Great Britain in 1852. In 1877 it was annexed by the British government, but after the rebellion of 1880 its independence was recognized under certain conditions. The discovery of gold in "the Rand" (see rand, in the *Dict.*) and the consequent influx of foreigners produced friction leading to the South African War (1899–1902), which resulted, in 1900, in the annexation of the Transvaal. In 1906 it received responsible government, and in 1910 became one of the provinces of the Union of South Africa.

Religion and Education. The Dutch Protestant churches are the strongest religious denomination.

The primary and elementary schools are maintained by the province and consist of 1,198 primary schools, with 123,000 pupils; 41 intermediate and secondary schools, with over 11,880 pupils; 640 state and state-aided schools for colored, native, and Indian children, with 79,366 pupils.

Industry and Production. Transvaal is a great stock-raising country, with vast flocks of sheep and goats. Large areas are adapted for agriculture, and the corn and tobacco crops are important. The greatest resources, however, are gold, diamonds, and coal.

Transvaal has an **area** of 110,450 square miles, and is divided into 39 districts. The European **population** (1931) was 795,963.

ORANGE FREE STATE

Europeans first crossed the Orange River in the middle of the eighteenth century, and made settlements in 1810 and 1820. In 1848 the whole territory, including the Vaal, was proclaimed a British possession, but in 1854 British sovereignty was withdrawn. In the South African War the Orange Free State sided with the South African Republic (now Transvaal Province), and as a result was annexed, in 1900, as the Orange River Colony. It was governed as a crown colony until 1907, when it received responsible government, and in 1910 it became a part of the Union of South Africa.

Religion and Education. The principal religious denomination is the Dutch Reformed Church, with 175,000 adherents.

Primary and secondary education are controlled by the province, which is divided into school districts, for each of which there is a school board. In 1917 there were 731 public, and 137 aided private, schools, with 36,938 pupils. Attendance is compulsory, but fees are charged at all the schools. Both Dutch and English are taught to all children unless objected to by the parents. There are several institutions of higher instruction: a normal school, a polytechnic college, and an industrial school.

Industry and Production. The province is well adapted for grazing, and stock farming is the chief industry, although an increasing quantity of grain is being produced. The province produced in 1917, $4,551,800 worth of diamonds and $1,056,000 worth of coal.

The province has an **area** of 50,389 square miles, and is divided into 31 districts. The European population (1931) was 205,324.

Chronology

Union of South Africa

1487. Dias rounds Cape of Good Hope.
1652. *April.* **Dutch East India Company** starts a station **at Cape Town** (Table Bay).
1795. *Sept. 16.* First English occupation of **Cape Colony.** Though restored by Treaty of Amiens (1802), colony is again captured in 1806.
1814. *Aug. 13.* British possession is confirmed by treaty with Netherlands. Colony then had about 30,000 inhabitants (Boers).
1820. Beginning of British assisted immigration; about 5,000 arrive within a year, and are located on new land in Albany.
1824. **Beginning of Natal;** settlement at Durban of a few Englishmen.
1825. *Jan. 1.* **English** made the official **language.**
1834. *Dec. 1.* **Slavery abolished** under British act of August 28, 1833. Colonists resent it and suffer from lack of reasonable equivalent; instrumental in changing country from agricultural to pastoral.
1836. Beginning of the **emigration** (trek) **of the Boers** to the region beyond the Orange River and British sphere (see great trek, in the *Dict.*), where they formed what became later the **Orange Free State** and **South African Republic.** Some go to Natal.
1842. British military force sent against Boers in Natal, and on May 12, 1843, the **colony of Natal is proclaimed.** Attached to Cape Colony, but made separate colony July 12, 1856, and given a constitution; in 1893 responsible government.
1852. *Jan. 17.* **Sand River Convention** acknowledges independence of Boers north of Vaal River (**South African Republic**).
1854. *Feb. 23.* Following a defeat by Basutos and conferences with Boer settlers, British acknowledge **independence of Orange River territory** (Free State).
June 30. **First parliament** of Cape Colony meets; representative government having been authorized by British government May 23, 1850.
1859. Beginning of railroad construction.
1868. *March 12.* **Basutoland** proclaimed British territory; for a while annexed to Cape Colony (1871–1883), but later directly governed.
1869–1871. Discovery and development of the **diamond fields,** especially at **Kimberley.** Jurisdiction over the field contested by Orange Free State, but most of it put under British control (Griqualand West) and the Free State given a pecuniary indemnity. Field incorporated in Cape Colony in 1877.
1872. **Responsible government** introduced **in Cape Colony.**
1875. *Dec. 11.* Treaty on boundaries of Portuguese East Africa and South African Republic
1877. *April 12.* Proclamation declaring South African Republic to be British territory, a phase of Disraeli's imperialistic policy. State of republic then so low people unable to resist the action beyond a formal protest. British commission assumes government. Plans for confederation of South African colonies fail.
1879. **Zulu War;** ends with **defeat of Cetewayo,** the Zulu king, at Ulundi by Wolseley (July 4), and capture later of the king.

1880. *Dec. 16.* **Revolt of South African Republic** begins.

1881. *Feb. 27.* Defeat of British at **Majuba Hill.**

March 6. Armistice followed by the Convention of Pretoria, August 3, by which the Republic secures self-government under British suzerainty.

1884. *Feb. 27.* **Convention of London;** practical **independence** for South African Republic, except for British veto on treaties with other nations.

1885. *Sept. 30.* British jurisdiction proclaimed over (British) Bechuanaland; annexed to Cape Colony, October 3, 1895.

1886. **Discovery of gold** in the Rand, S. A. R., followed by development of **Johannesburg,** and **great influx** of outside capital and **foreigners,** to whose demands for equitable political and other rights and treatment the Boer government steadily refuses to yield, being determined to hold political power. ("*Uitlander*" [foreigner] controversy.)

1887. *May 14.* Zululand declared a British possession; added to Natal, December 1, 1897.

1889. *March 28.* Convention for customs union between Cape Colony and Orange Free State. Union extends also later to Natal and Bechuanaland protectorate, Basutoland, Swaziland, and Rhodesia.

Oct. 29. Incorporation of the **British South Africa Company** (Cecil Rhodes guiding spirit), to operate north of British Bechuanaland and south of the Zambezi; but administration over Bechuanaland protectorate never exercised.

1890. *June 30.* Order in council for Bechuanaland protectorate; further order on May 9, 1891.

July 1. Treaty delimiting **German** and **British spheres** in Africa; defines British spheres as to Cape Colony, Bechuanaland protectorate, present Rhodesia, and Nyasaland.

1891. *February.* Field of the British South Africa Company extended north of the Zambezi; not to include Nyasaland.

May 14. Notification of British protectorate over Nyasaland.

June 11. Treaty delimiting **Portuguese and British spheres;** including Angola and Portuguese East Africa on one part, and present Rhodesia, Nyasaland, and Natal on the other part.

1893. **War with the Matabele.**

Cape Town and Port Elizabeth connected by railroad with Johannesburg and Pretoria.

1894. *May 12.* Treaty delimiting British and Belgian Congo spheres, including present Rhodesia.

July 18. Matabeleland, Southern Rhodesia, placed under British South Africa Company.

Oct. 3. **Railroad** from Cape Town north (**Cape-to-Cairo**) opened to Mafeking.

1895. Railroads from Lourenço Marques to Pretoria and from Durban to Pretoria, via Johannesburg, opened.

Dec. 29. **Jameson Raid;** premature march into South African Republic of 500 horsemen of British South Africa Company with artillery, in connection with **conspiracy of Rhodes** and foreigners at Johannesburg to rise against Boer government; raiders defeated and captured (January 2, 1896). Sixty-four of reform committee at Johannesburg arrested. Fruitless negotiations between Transvaal and British government ensue; question of British suzerainty and rights of foreigners (**uitlanders**); both sides making military preparations.

1897-1905. Sir Alfred (Lord) **Milner high commissioner** for South Africa.

1897. **Cape-to-Cairo Railroad opened** to Bulawayo, in Southern Rhodesia.

1899. *May 1.* Salisbury in Southern Rhodesia (Mashonaland) connected by railroad with coast at Beira in Portuguese East Africa.

Oct. 12. **Boers issue ultimatum** demanding withdrawal of British troops from frontier; refused, and the two republics, South African Republic and Orange Free State (in alliance) begin **South African War** by besieging Mafeking and Kimberley, and invading Cape Colony, and Natal, where siege is laid to **Ladysmith. British defeated in series of battles** for relief of Ladysmith (**Colenso** December 15; **Spion Kop,** January 23, 1900; and **Vaal Krantz,** February 5); also at **Magersfontein** (December 10-11) and **Stormberg** (Dec. 10).

Nov. 28. Northwestern Rhodesia put under administration of British South Africa Company.

Dec. 18. **Lord Roberts** made commander in chief of British forces; **Kitchener,** chief of staff.

1900. *Jan. 29.* Northeastern Rhodesia put under the British South Africa Company.

Feb. 15. Relief of Kimberley. February 27, Cronje, Boer commander, surrenders to Roberts at Paardeberg. February 28, Ladysmith relieved; May 17, Mafeking relieved.

May 24. **Orange Free State annexed** as Orange River Colony, later again known as Orange Free State.

May 31. **Johannesburg** occupied. On June 5, Roberts enters **Pretoria.**

Sept. 1. **South African Republic annexed** as Transvaal. Roberts goes home, leaving Kitchener in charge. **Boers** resort to **guerrilla warfare,** conducted under Botha and De Wet, compelling large British force to keep the field.

1902. *May 31.* **Peace of Vereeniging;** honorable terms received by the Boers, but independence surrendered. British employ about 450,000 men in the war; Boers (including Cape Colony rebels), about 95,000. British **casualties:** 5,774 killed, 22,829 wounded; Boers had about 3,700 killed. **War cost** Great Britain $1,000,000,000.

1903. Chamberlain, colonial secretary, visits South Africa on matters of reconstruction; chief problems are labor, the war contributions of the conquered republics, and the language question. Boers also demand responsible government.

Salisbury, Southern Rhodesia, connected with the **Cape-to-Cairo Railroad,** giving a continuous line between Beira and Cape Town.

August. Convention for customs union, with preference of 25% to United Kingdom.

1904. *Feb. 18.* **Jameson becomes premier** of Cape Colony; his conservative ministry finds Dutch support.

April 25. **Cape-to-Cairo Railroad** reaches Victoria Falls on the Zambezi.

June 22. Arrival of **first** shipment of **Chinese** contract **coolies** to work in mines. Deemed temporarily necessary by Lord Milner, governor of the Transvaal and Orange River Colony, sufficient number of blacks not being available, and whites unwilling to work with blacks. Popular opposition. Number of coolies reaches 50,000 next year, but policy is then reversed and in 1910 last of them sent back to Hong Kong.

1905-1910. Lord Selbourne high commissioner.

1905. *Dec. 6.* **Responsible government in Transvaal;** idea of a war contribution has been dropped. **Language question** (Taal and English) ultimately **compromised;** higher education to be entirely in English, lower education bilingual.

1906. *Dec. 1.* Order in council transfers Swaziland from Transvaal to crown administration, as in Basutoland; this leaves Zululand alone of the great native reservations under colonial (Natal) control.

1907. *July 1.* Responsible government proclaimed for Orange Free State.

1908. *Oct. 12.* National Convention meets at Durban, later at Cape Town; forms a **constitution for Union of South Africa** composed of Cape Colony, Transvaal, Orange Free State, and Natal, which is promulgated February 9, but later amended, and finally approved by the British Parliament on September 20, 1909. Suffrage problem; Dutch, having a majority in the Union, require that it be limited to men of European origin; native suffrage continues in Cape Colony but can be abrogated by a two-thirds vote of Union Parliament. Other portions of South Africa may be admitted to Union.

1910. *May 31.* **Union of South Africa proclaimed.** Lord **Gladstone** sworn in as **governor-general. Botha,** a Boer general, heads first **ministry.**

July 1. New customs union formed; includes Union of South Africa and all the other British possessions in South Africa.

Nov. 4. Duke of Connaught opens **first parliament** of Union.

1911. **Cape-to-Cairo Railroad** crosses Congo border and is completed to Elisabethville in that colony.

May 7. Population of Union of South Africa 5,973,394, of whom 1,276,242 are whites.

1912. *June 13.* **South Africa Defense Act;** includes a permanent force, coast-garrison force, active and general-citizen force, and naval reserve. Peace training for all men between 21 and 25.

1913. *June-July.* **Strike** of white miners **in Rand** under syndicalist propaganda; rioting at Johannesburg on July 4; martial law next day.

November. Strike of Indian workers in Natal, due to race discrimination; sporadic rioting, also passive resistance. In 1914 a parliamentary Indians Relief Act accepted as sufficient settlement of grievances.

WORLD WAR PERIOD

1914. *Jan. 8-22.* **Railway strike,** followed by syndicalist call for a general strike.

Martial law is proclaimed and leaders arrested. January 24, nine of **strike leaders deported** to London. Indemnity Act, March 19, protects government officials against punishment for illegal acts. Other legislation aimed against labor agitation, but a Workman's Compensation Act also passed.

August. Outbreak of World War involves South Africa as part of British Empire. Forces raised. Part of the Dutch seize opportunity to rise.

September. Sydney (Lord) **Buxton governor-general.**

October. Several parties of **Boers** under Maritz, De Wet, Beyers, and Kemp **revolt** through German intrigue; speedily **suppressed by Botha** with force of 20,000 Dutch and 10,000 British. **De Wet captured** December 1, later convicted of high treason but released; Kemp also captured February 1, 1915; Beyers killed; and Maritz, escaping into German Southwest Africa, executed by Germans for treachery.

1915. *February.* Botha begins **invasion of German Southwest Africa;** some 27,500 British and 22,500 Boer troops participate; Windhuk, the capital, occupied on May 12, and formal **surrender of territory** made on July 8.

Oct. 20. **General election;** bitter contest; **Botha** and war policy **sustained** by 54 seats for his party (South African) and 40 for Unionists; Nationalists, Dutch, led by Hertzog, who opposes the war and British connection, get 27 seats; Independents, 6; and Laborites, 3.

December. First contingent of **South African troops for overseas** reaches England; about 70,000 are sent out during the war.

1916. South African troops participate in **campaign against German East Africa;** Jan Christiaan Smuts commands. Dar es Salaam, the capital, occupied on September 4.

1917. Campaign continues in German East Africa; Van Deventer succeeds Smuts, who goes to England and becomes a member of the war cabinet there. At end of year territory is cleared; German troops driven into Portuguese territory.

1918. **Population** of Union 6,872,164, including 1,467,457 whites.

May 22. **Cape-to-Cairo railway** reaches the Congo at Bukama.

Nov. 14. After armistice, German force of **East Africa surrenders.** Total S. African force in war about 150,000; casualties: 6,533 killed, 11,661 wounded, 1,637 prisoners and missing.

Dec. 2. Botha leaves to attend Peace Conference, to which Smuts is also a delegate. Smuts draws up a plan for a League of Nations.

1919. *March.* **Strike at Johannesburg** with revolutionary tendencies. Strikers take possession of public service and set up a board of control. Dies out.

Aug. 28. Premier **Botha dies; Smuts succeeds.**

Sept. 12. **Treaty of Versailles ratified** by South Africa.

1920. *March 10.* **General elections.** Laborites gain, Nationalists (Dutch) do not. Ministry retains majority by help of Unionists and Independents.

1920. *June 23.* **Prince Arthur** of Connaught is appointed **Governor-General of South Africa.**

Oct. 24. The Free State Nationalist Congress adopts resolutions proclaiming **right** of the people **of South Africa to secede** from or break any existing bonds with Great Britain, and expressing opposition to a closer imperial union.

1921. *Feb. 15.* As a result of the South African election, held Feb. 8, **the South African party,** of which General Smuts is the head, has won 79 seats; the Nationalists, 45; the Labor party, 9; the Independents, 1.

May 26. The **Federation of Labor Unions,** at its recent congress, passed a resolution by 35 to 22, to the effect that "steps be taken to affiliate with the Third International."

1922. *Jan. 8.* A **strike** is declared in all the gold and coal mines **in the Transvaal** to begin Jan. 9.

March 13. The Government forces are everywhere successful against the strikers in the Rand.

1923. *Feb. 3.* The **bill to enfranchise women defeated** by one vote in Parliament.

Nov. 21. The **Earl of Athlone** succeeds Prince Arthur of Connaught as **Governor-General** of South Africa.

1924. *March 21.* An order in council provides for the establishment of **Northern Rhodesia** as a **British protectorate.**

April 8. Loss of by-election causes General Smuts to dissolve Parliament.

June 17. The elections in South Africa result in **a defeat for General Smuts** and the South African party, which obtains 52 seats. The Nationalist party obtains 61 seats and the Labor party 18, and on June 23 General Smuts tenders his resignation to the Governor-General.

July 4. **General Hertzog forms a Cabinet** with himself as premier in charge of native affairs.

July 25. The program of the new Government is announced, including the establishment of a Department of Labor, increased financial relief of the unemployed, and the employment of more white labor on the railways.

1925. *April 28.* **Premier Hertzog, in** the course of a **budget speech, declared that** while he held the opinion that **any dominion has the right to secede from** what is known as **the British Commonwealth,** such a decision would be a flagrant mistake and a national disaster.

April 30. The **Prince of Wales,** on landing at Cape Town, **receives a hearty welcome.**

July 23. The **Government introduces the Asiatic Bill,** which empowers it under certain circumstances to set aside trading or residential areas or both "from certain persons having racial characteristics in common."

1926. *June.* **A national flag** of red, green, yellow, and blue bars is **adopted** by the House.

1927. *Nov. 4.* The Senate passes the second reading of the **Flag Bill, amended** to define the Union Jack as one of two South African flags, the design of the national flag to include the Union Jack, the Orange Free State flag, and the Transvaal *Vierkleur.*

N O P Q R S T U V W X Y Z

1928. *March 29.* By unanimous vote of the House of Assembly, the Union of South Africa accepts the report of the Imperial Conference of 1926 concerning the constitutional relations between the Dominions and Great Britain.

May 9. The Delimitation Commission announces the **redistribution of Parliamentary seats** based on the last census.

1929. *June 12.* **General elections** are held which **result in a victory for the Nationalist party** under Premier Hertzog, giving them 76 of the 148 seats in the Legislative Assembly.

1930. *Feb. 12.* The **Earl of Clarendon** is **appointed** to succeed the Earl of Athlone **as Governor-General** of South Africa.

1931. *Oct. 16.* The Union government imposes an exchange duty of 20 per cent on all imported British silver coins to prevent dumping.

Nov. 26. The Government announces that the Senate and House of Assembly have passed a currency bill enabling **South Africa to remain on the gold standard.**

1932. *March 19.* It is announced that South Africa will henceforth use rands, florins, and cents as monetary denominations rather than the British units.

Dec. 29. **South Africa abandons the gold standard.**

1933. *Feb. 1.* A motion of nonconfidence in the Government of Premier Hertzog is defeated in the Assembly 83 to 63.

Aug. 3. A **farm relief program is adopted** proposing a new tax on gold mines to provide a rebate fund.

BRITISH WEST AFRICA

British West Africa includes the colony and protectorate of Nigeria, the Gambia colony and protectorate, the Gold Coast colony with Ashanti and the Northern Territories, and the Sierra Leone colony and protectorate. Parts of Togoland and Cameroons are also included as mandated territories.

Nigeria lies between Dahomey and Cameroons. The colonies and protectorates in this region were amalgamated, January 1, 1914, into the colony and protectorate of Nigeria, with the capital at Lagos. It is a crown colony under the control of a governor-general and executive council. Slavery was not completely abolished until 1917. In 1931 there were in the Northern Provinces over 35,000 Mohammedan schools, with 193,234, pupils, and in the southern province nearly 3,000 government and private schools, with an attendance of 186,728. The chief products are palm oil, cotton, cocoa, tin ore, and hides and skins. There are rich deposits of tin in the Northern Provinces and of coal in the Southern provinces. The **area** is about 372,674 square miles and the **population** (1931) 19,928,171.

Gambia is at the mouth of the river Gambia and has an area of four square miles with a population of 10,000. The protectorate has an area of 4,003 square miles and a population of 200,000. The chief exports are groundnuts, hides, palm kernels, and gold.

The Gold Coast extends 334 miles along the Gulf of Guinea between the French Ivory Coast and Togoland. It is a crown colony, and with Ashanti and the protectorate of the Northern Territories, has an area of 78,800 square miles (not including Togoland). The population in 1931 was 2,866,000. The chief exports are cocoa, gold and gold dust, kola nuts, lumber, palm kernels, palm oil, and rubber.

Ashanti has been under British protection since 1896, and was annexed by Great Britain in 1901. The population (1931) was 578,702. The chief products are cocoa, rubber, and gold. Ashanti is rich in forests, rubber-producing plants, and trees yielding fruits rich in oil.

The Northern territories lie between the French possessions and Togoland and were placed under British protection in 1901. They are said to contain wide gold areas.

Sierra Leone (colony) is between French Guinea and the republic of Liberia. The original colony was founded in 1787 for the purpose of making a home for free negroes. Freetown, the capital, has an excellent harbor and ranks as the chief seaport of West Africa. The chief exports are palm kernels, kola nuts, and palm oil. The area is approximately 259 square miles and population (1931) 96,422, of whom 420 were whites.

The protectorate of **Sierra Leone,** with an area of 27,669 square miles and a population (1931) of 1,672,-058, was established in 1896. The chief exports are palm kernels, kola nuts, and palm oil.

ANGLO-EGYPTIAN SUDAN

Sudan extends from the frontier of Egypt to Uganda and the Belgian Congo, and from the Red Sea to Wadai, in Central Africa. At various times a nominal authority was exerted over it by Egypt, but from 1882 until the victories of Kitchener in 1898 and 1899 there was no Egyptian influence there.

It is governed by a governor-general appointed by Egypt with the assent of Great Britain, assisted by a council. The Sudan is divided into thirteen provinces, over which are British officers.

In 1932 there were 90 elementary schools, with over 9,340 pupils, and Gordon College where pupils are trained for government positions and for teachers. There were (1932) 20 girls' schools attended by 1,886 pupils, and a training college for girls.

Sudan is the chief source of the world's supply of gum arabic and ivory. Other important products are cotton, doom palm nuts, dates, hides, skins, and gold.

The **area** is 1,008,100 square miles and the estimated **population** 6,469,041.

MANDATED TERRITORIES

TANGANYIKA TERRITORY
(formerly German East Africa)

German East Africa was conquered in 1918 and divided between the British and Belgians. It is administered under a mandate approved by the League of Nations, which lays down prohibitions against slavery, forced labor, abuses in the arms traffic, and trade in spirits. It is administered by a Governor and an executive council. A legislative council established in 1926 consists of three ex-officio members and ten official members.

The chief export of the Territory is sisal fiber. Other crops are coffee, cotton, and copra. There are extensive herds of cattle, sheep and goats. In 1931 there were 99 government schools with over 5,000 pupils, and more than 3,000 mission schools with over 100,000 pupils. The area is about 366,632 square miles and the population 5,063,544.

SOUTH-WEST AFRICA

This territory, the former German Southwest Africa, lying between Portuguese West Africa and Northern Rhodesia, was annexed by the Germans in 1884, but surrendered to the forces of the Union of South Africa in 1915, and is now administered under a mandate from the League of Nations by the Union of South Africa. The country is essentially a stock-raising country, although there are valuable mines. In 1931 there were 71 government schools with over 4,000 pupils, and 74 registered private schools with over 1,000 pupils. The total area is 322,394 square miles, and the European population is estimated at 31,000 and the native population at 237,000.

BRITISH CAMEROONS

This territory lies between British Nigeria and the French Cameroon. It was captured from the Germans in 1916 and divided between the French and British. The British portion has an area of 34,236 square miles and a population estimated at 700,000. The soil near the coast is fertile and the region heavily forested. The chief exports are bananas, palm kernels, palm oil, and rubber.

TOGOLAND

This territory lies between the Gold Coast and French Dahomey and was surrendered to the British and French forces in 1914 and divided between them. Togoland is held under a mandate from the League of Nations. There are 74 schools with about 3,000 pupils. The principal exports are palm oil, palm kernels, cocoa, kola nuts, and cotton.

BRITISH DOMINION AND POSSESSIONS IN AMERICA

CANADA

Historical Outline

The Dominion of Canada is the largest unit of the British Empire in America and the largest of the self-governing Dominions. Its territory, nearly four million square miles in extent, was acquired at different times and in several ways. British claims date from the voyages of John Cabot, and British interest in the fisheries of the east coast has been continuous since the sixteenth century. The discovery of Hudson Bay in 1610 was followed in 1670 by the creation of the Hudson's Bay Company. By the Treaty of Utrecht in 1713 France relinquished all claim to the Hudson Bay area as well as to Newfoundland and Acadia (Nova Scotia). The French empire of the St. Lawrence and Mississippi valleys was acquired by Great Britain by conquest in the French and Indian War (Peace of Paris, 1763). British claims to the Pacific coast date from the voyages of Drake and later of Capts. Cook and Vancouver.

Canada was the most important of the French colonies in America before 1763. Its western boundaries were far-flung but ill-defined. Explorers, such as La Salle and La Vérendrye, penetrated far into the valley of the Mississippi and the northwest; but the colony on the St. Lawrence — the core of the French system — was the only closely knit community. Its political institutions and social structure, the organization and importance of its ecclesiastical system, were all characteristically French of the old regime. These institutions were adapted by the colonists themselves and by capable French officials to the special conditions of the St. Lawrence valley; the result was a small, compact, homogeneous, French-Canadian society. The land system was feudal; the church, narrowly centralized and aggressive, exercised a profound influence through its parish priests. The government, entrusted after 1664 to royal officials, was centralized, autocratic, and paternal. The governor, bishop, and intendant were the important executive officers and were assisted by a Supreme Council of appointed members. Local government — including defense and local justice — was entrusted to the important local landholders, the seigneurs, who were supervised from Quebec. The whole administrative system was closely regulated from Paris; and the French kings, who, particularly in the seventeenth century, took an active interest in the colony, assisted its economic growth and encouraged immigration.

Fur trading was the most lucrative industry, and furs were the chief export. Spurred on by ambition and love of adventure, fur traders pushed west and north and with the missionaries helped to extend and to maintain French influence. In the St. Lawrence valley the chief industry was agriculture, but the colony was rarely more than self-supporting. Lumbering and fishing were the other principal activities. As in France itself, industry was regulated minutely by the government. The colony prospered, but slowly; and in 1763 the population was about 70,000.

The conquest of New France was the culmination of a long Anglo-French struggle for colonial supremacy in a new world. But the conquest meant the perpetuation, not the disappearance, of a French element in Canadian life. Britain confirmed to the French colonists (by the Quebec Act, 1774) the right to retain their religious system, their civil law, and language. Protected by these vested rights and by their own conservatism and pertinacity, the French have continued to wield an important influence in Canadian development.

The possibility of a completely French-Canadian Canada was destroyed by the American Revolution. Canada, although urged by the Americans to join with them and although actually invaded, did not become one of the revolting colonies; and after the conclusion of peace, thousands of American loyalists emigrated to Canada. They settled chiefly in Nova Scotia, New Brunswick, and Upper Canada (Ontario); and their arrival greatly strengthened the British connection and hastened Canadian development along traditional British lines. In 1791 the British government passed the Constitutional Act dividing the province into Upper and Lower Canada, and creating an elective assembly in each. The War of 1812, in which Canadians defended themselves and repulsed the American invaders, confirmed the effect of the American Revolution on Canadian population and settled the fact that Canada would take its course within the British Empire.

The political system after 1791 allowed the provincial assemblies no effective control over the executives, consisting of the governors and the appointed councils. A democratic agitation, which arose especially after 1815, culminated in the rebellions of 1837 in Upper and Lower Canada. Lord Durham was sent out from England on a special mission of inquiry; and in his famous *Report* he advocated the union of the two provinces as a step towards a wider federation of British North American colonies, and the admission of the principle of parliamentary, or responsible, government. The downfall of the protective system in England, and the repeal of the Navigation Acts in 1849 cleared the way for the change; and by 1850 the principle of responsible government was recognized in the united province as well as in Nova Scotia and New Brunswick. By this principle the appointed council of the governor became a ministry, selected from and dependent upon the party in power in the elected assembly. The British system of cabinet government was thus definitely established and it forms the basis of both federal and provincial political systems to this day.

During the 1850's the federation of all the provinces became a practical possibility. The need of a united policy of defense, the development of trade within the provinces, the building of interprovincial railways, the necessity of incorporating the West, and, finally, political deadlock in the united province, all disposed men to favor a wider union. The movement culminated in interprovincial conferences at Charlottetown and Quebec where an agreement was framed as a basis of federation. This was submitted to the British Parliament and passed in 1867 as the British North America Act. This Act is in effect the existing federal constitution.

The striking characteristics of Canadian progress since the Confederation have been: (1) territorial expansion; (2) economic growth; and (3) constitutional development. The British North America Act united the provinces of Ontario, Quebec, Nova Scotia, and New Brunswick. The next to be admitted to the Confederation were Manitoba in 1870, British Columbia in 1871, and Prince Edward Island in 1873. The incorporation of the central west proceeded more slowly. The Hudson's Bay Company, which in 1821 united with the fur merchants operating from Montreal, had by 1850 extended its activities to the Arctic and the Pacific. British territorial claims in the West were defined by the treaties of 1818 and 1846, extending the 49th parallel as the

international boundary to the Pacific. Canada purchased the territories of the Hudson's Bay Company in 1869. The provinces of Alberta and Saskatchewan were created in 1905. The Dominion in 1934 consists of nine provinces, the Yukon, and the Northwest Territories.

Canada's economic growth has been scarcely less significant. The Canadian Pacific Railway was completed to the Pacific in 1885; two other transcontinental lines have since been built, and the system of roads and canals has been greatly extended. Immigration, which languished during the first decades of Confederation, increased rapidly between 1900 and 1914. The growth of production has, however, enormously outstripped the growth of population. Significant in this connection have been the opening up of the West as an immense grain-growing area, the increase in manufacturing particularly in Ontario and Quebec, and the great development of the mining and lumbering industries. Public ownership and co-operative movements on a large scale have been successfully attempted, particularly in respect to steam and electric railways, hydroelectric power, and the marketing of grain.

These developments have naturally increased Canada's national importance and the Dominion has gradually assumed complete control of her domestic concerns. Since the 1850 decade Canada has controlled the tariff system, and soon afterwards took over responsibility for military defense and the policing of the waters. Canada's treaty-making powers were first demonstrated in commercial agreements. The Dominion ratified the Peace Treaties of 1919 separately; had a separate place upon the Council of the League of Nations; and has established resident ministers at Washington, Paris, and Tokyo. In all this there has been no hint of conscious striving for complete independence. Canada's fundamental loyalty to the British connection was revealed during the World War, and she retains her desire to remain as a self-governing unit within the British Empire. That allegiance to the Crown now constitutes the only formal bond of Empire was recognized by the Imperial Conference of 1926.

Under the responsible government system, Sir Robert Borden resigned in 1920 as Premier and Arthur Meighen attempted to rule with a coalition government. The elections in 1921 resulted in an overwhelming victory for the Liberals, and W. L. Mackenzie King became Prime Minister and remained in office until 1930.

During this period Canada made rapid recovery from the effects of the World War, and in 1926 reestablished the gold standard. Lower tariffs were adopted, the national debt was gradually reduced, and immigration, particularly to the prairie provinces, was greatly increased. In this period the prohibition movement was successful in many of the provinces, while others, particularly Ontario and Quebec, adopted a system of government liquor control. In the western provinces a Progressive party was formed which held the balance of power from 1925 to 1926 and urged more radical measures upon the government.

In 1930 the Liberals were overwhelmingly defeated by the Conservatives under R. B. Bennett, who promised greater protection in trade and industry, together with imperial preference. World-wide depression forced Canada to adopt relief measures for unemployment and to face a deficit in her budget. To meet this deficit Premier Bennett still further increased the tariff, giving Great Britain and most parts of the Empire preferential treatment, established a sales tax, and increased the income tax. At the Imperial Conference of 1930 Premier Bennett unhesitatingly but unsuccessfully urged a tariff union within the British Empire; and in 1932 an imperial economic conference was held at Ottawa by which Great Britain and the dominions, through mutual concessions, obtained preferential treatment in each others' markets, while the goods of other countries were subject to heavy duties.

Organization

Government. The constitution of Canada was created in 1867 by agreement among the several British provinces. It is in the form of the British North America Act, passed by the Imperial Parliament in London, and "similar in principle to that of the United Kingdom." Executive authority is vested in the Crown advised by responsible ministers. By agreement reached in 1926 Canada, in relation to Great Britain, is "equal in status" and in no way subordinate. The Governor-General in Canada, who represents the King, exercises authority only on the advice of his Canadian ministers. The Prime Minister of Canada must always command a majority in the Canadian House of Commons.

The Cabinet consists of the Prime Minister, frequently called the Premier, the President of the Privy Council, the Secretary of State, the Solicitor-General, and ministers at the heads of the various departments. Occasionally more than one department is under the control of a single minister. The departments are External Affairs, Justice, Finance, Interior and Indian Affairs, Agriculture, Pensions and National Health, Marine and Fisheries, Railways and Canals, Public Works, Post Office, National Revenue, Trade and Commerce, Immigration and Colonization, Labor and Mines, National Defense, Secretary of State; and three Ministers without Portfolio.

The legislature consists of a Senate and a House of Commons. The Senate has 96 members and may be increased to a maximum of 104. The country is divided into four sections which have equal representation. Senators are appointed for life by the government in power. They must be at least 30 years of age, and possess property to the value of $4,000 in the province from which they are appointed.

The House of Commons is elected by the people for a term of five years, unless sooner dissolved. The Province of Quebec chooses 65 members and the other provinces proportionally according to their populations. In 1930 the House had 245 members: Ontario, 82; Quebec, 65; Nova Scotia, 14; New Brunswick, 11; Manitoba, 17; British Columbia, 14; Prince Edward Island, 4; Saskatchewan, 21; Alberta, 16; Yukon, 1.

Under the constitution the Dominion government, unlike that of the United States, is endowed with all the powers not assigned exclusively to the provincial legislatures. Each of the nine provinces has a separate parliament and administration, with a lieutenant-governor nominated by the Prime Minister of the Dominion. The legislatures of all the provinces, with the exception of Quebec, are unicameral, the members being elected by the people. The principle of a responsible ministry dependent on the majority in the elected house applies in the provinces as in the Dominion. Provincial governments may amend their constitutions (except as regards the office of lieutenant-governor), levy taxes, borrow money, manage the sale of crown lands within the province, and exercise general police power except over lines of ships, railways, canals, and telegraphs which extend beyond the province or connect with other provinces. The federal Parliament, however, may declare certain public works for the general good and thus withdraw them from the control of the provincial parliaments.

Production and Industry. The principal sources of Canada's wealth (net values) are as follows: manufactures (1930) $3,428,970,628; agriculture (1931) $880,241,000; mines (1931) $228,029,018; fisheries (1931) $30,682,631. In 1930 the electrical power output ranked fourth in Canada's industries, and had $1,138,200,016 of invested capital.

The four most important groups of manufacturing industries (net values, 1930) were: vegetable products, $672,023,666; wood and paper products, $636,-599,911; iron and steel products, $569,745,973; animal products, $417,540,878. Ontario and Quebec are the leading manufacturing provinces, although manufacturing in the hitherto largely agricultural West shows an increase.

Canada had in 1925 one of the most favorable trade balances in the world; but as a result of the depression her exports fell to (1931–32) $587,565,517 and her imports to $878,517,744. Canada in 1930–31 adopted a high protective tariff with imperial preference.

Water power has been increasingly employed in manufacturing, chiefly in pulp and paper, mining, electrochemical, and flour-milling industries. The potential electric energy from Canada's 137,493 square miles of water area is about 20,350,000 horse power, of which only about 11 per cent is developed.

Immense distances and comparatively small population make problems of transportation peculiarly difficult and important. The total mileage of steam railways (1931) was over 43,000; the government-owned Canadian National Railways (about 21,000 miles) and the Canadian Pacific Railway (15,636 miles) being the two important companies. Public canals are important in the transportation system. On April 20, 1931, the enlarged Welland Ship Canal, costing in all $122,385,409, was opened. Total freight (1931) was 16,189,074 tons. On December 31, 1931, there were 27,651 vessels (17,618,784 tons) on Canada's registry.

Agriculture is the most important primary industry. Available land is estimated at 369,000,000 acres. The estimated value of field crops in 1931 was $125,065,100; the wheat crop was estimated at 304,144,000 bushels; oats 328,278,000; barley 67,-383,000; rye 5,322,000; hay and clover 13,960,000 tons; potatoes 52,305,000 cwt. Timber lands are estimated at 1,151,454 square miles, of which about 288,000 carry merchantable timber.

The total value of mineral products (1931) was $228,029,018, of which $118,524,439 was from metallic minerals. The principal metallic products are: gold, copper, nickel, lead, zinc. The principal non-metallic are: coal, asbestos, natural gas, gypsum, petroleum, salt. Until recently the eastern and central provinces and British Columbia were the chief centers of mining, although metallic mining in Manitoba and the production of coal and oil in Alberta have increased.

Important salt-water fisheries are found off the east and west coasts. The value of the fisheries (1931) was $30,682,631. The total value of fur production (1931) was $11,681,221. Fur farming has become an important industry, particularly in Prince Edward Island. In 1930, 5,070 fox farms were in operation.

Education is controlled by the provincial authorities, the general principle being that of free education in elementary and secondary schools. In Quebec there are two systems of public schools — Roman Catholic and Protestant. In Alberta, Saskatchewan, and Ontario, separate schools for Roman Catholics are permitted. Elsewhere the schools are entirely secular. There are 23 universities (6 state-controlled, 4 undenominational, 13 denominational) and 85 colleges, with a total registration of 77,618 (1931).

Defense. In 1922 the military, air, and naval services were reorganized under the Department of National Defense. The military forces are organized as: (1) permanent militia with an establishment of 3,800 in 1932; (2) nonpermanent militia; (3) reserve militia providing a framework for expansion in time of war. The active force (1932) of the navy is seven vessels and 896 men of all ranks. Civil aviation under the supervision of the Department of National Defense is developing rapidly.

For area and population, see page 304.

CANADIAN PROVINCES

ALBERTA

The district of Alberta, formerly part of the Northwest Territories, was admitted as a province of the Dominion in 1905. Formerly an almost exclusively ranching country, it has become one of the greatest wheat-producing provinces. About a quarter of its 60,000,000 acres of arable land is at present under cultivation. The principal crops are wheat, oats, barley, and rye. Alberta's most important mineral products are coal, natural gas, and petroleum; she produced in 1931, 4,564,290 tons of coal; 18,327,139 cubic feet of natural gas; and 1,455,195 barrels of petroleum. In the north are important forest reserves. The **area** is 255,285 square miles and the **population** (1931) 731,605.

BRITISH COLUMBIA

British Columbia became a crown colony in 1858; in 1866 it was united with Vancouver Island; and in 1871 became a province of the Dominion. The total value of the mineral production in 1931 was over $34,883,181, which was second only to that of Ontario. The most important minerals are copper, gold, lead, silver, zinc, and coal. The total value of forest production in 1931 was $44,447,000. The total value of the fisheries (1931) was over $11,110,000 — nearly half of the total of Canadian production. Salmon was the chief export. Agriculture is a comparatively small industry but the province has developed fruit farming, particularly in the Okanogan valley. The **area** is 355,855 square miles and the **population** (1931) 694,263.

MANITOBA

Manitoba was for two centuries a center of the activities of the Hudson's Bay Company in the Northwest. In 1869, the Company's claims were purchased by the Dominion, and in 1870 Manitoba entered the Confederation. The Crown lands and other natural resources were transferred to the Province on July 15, 1930. Manitoba holds third place among the prairie provinces in the production of grain. Northern Manitoba is believed to be rich in copper, gold, and zinc. The net production of manufactures in 1929 was $161,909,127. The **area** is 251,832 square miles and the **population** (1931) 700,139.

NEW BRUNSWICK

Settlements were made in New Brunswick as early as 1762. In 1784, it was separated from Nova Scotia, and in 1867 entered the Confederation as one of the original provinces. The Crown forests were transferred to the Province in 1930. The total value of forest production (lumbering and pulp industries) in 1926 was over $30,000,000. The total revenue from the fisheries (1930) was over $5,000,000. Manufacturing had a total value (1930) of $140,611,530. The **area** is 27,985 square miles and the **population** (1931) 408,219.

NOVA SCOTIA

Nova Scotia, then called Acadia, was settled by the French in 1604. In 1713, the colony was ceded to the British by the Treaty of Utrecht and its name changed to Nova Scotia. It entered the Confederation in 1867. The chief industries are agriculture, manufacturing, mining, and fishing. Field crops, dairy products, fruits and vegetables are the most important agricultural products. The total value of manufactured products in 1930 was over $85,000,000. The annual production of coal is over one third of the entire Canadian output. Fisheries of Nova Scotia are second only in importance to those of British Columbia. Total value of production (1930) was $10,411,202. The **area** is 21,428 square miles and the **population** (1931) 512,846.

ONTARIO

Ontario, known as Upper Canada from 1791 to 1867, was one of the original provinces of the Do-

1905 (*continued*).
Question of sectarian education met by privilege of limited religious instruction in public schools.
Dec. 7. Transfer of defenses at Halifax to Canadian control. Regulars also leave Esquimalt, B. C. (May 17, 1906), leaving defense entirely in Canadian hands.

1906. *July 13.* **Lord's Day Observance Act** limits Sunday labor, trade, and amusements. In force March 3, 1907.
Sept. 8. Serious **rioting** in Vancouver **against Japanese** and other Asiatics. Canada makes reparation.

1907. *March 22.* **Industrial Disputes Investigation Act** (Lemieux Act) makes **strikes** or **lockouts** in mines and public service companies illegal until the dispute has been investigated by board of conciliation; act applies permissively to other industries.
Aug. 29. **Collapse** of portion **of great bridge** being constructed across the St. Lawrence **at Quebec.**

1908. Discovery of **gold in** Porcupine region of northern **Ontario.**
Jan. 1. Government of Manitoba takes over telephone system. Alberta does it on April 1, and Saskatchewan on May 1, 1909.
Jan. 21. Report is made in Parliament of a gentlemen's **agreement with Japan** for restriction of **immigration.**
July 20. Old Age Annuities Act becomes law.
July 20–31. **Tercentenary of Quebec;** Prince of Wales, Lord Roberts, Vice-President Fairbanks, and other notables present.
Oct. 26. General election; government triumphs on general record rather than special issues.

1909. *Jan. 11.* Boundary-waters treaty (see United States).
Jan. 27. Fisheries convention (see United States).

1910. *May 4.* **Naval Service Act,** following an Imperial Defense Conference in London in July, 1909, provides for a volunteer force, naval college, and fleet of 5 cruisers and 6 destroyers to be built in Canada; service at disposal of British Empire in case of emergency. Much opposition to act.
Act on combinations and monopolies, not directed against organizations, but against unfair exercise of power; board of 3 to investigate, tariff protection may be withdrawn or daily fine imposed.
May 21. Treaty on Passamaquoddy Bay boundary (see United States).
Sept. 7. Award on **fisheries** rights by Hague Tribunal (see United States).

1911. Population of Canada 7,206,643.
July 7. **Fur-seal treaty** (see United States).
Sept. 21. General election: issue is reciprocity agreement with United States (see United States); Laurier's government is badly defeated and resigns, thus defeating reciprocity. (Sir) Robert L. **Borden** forms Conservative **ministry.**
Oct. 13. Duke of **Connaught governor-general.**

1912. *April 1.* Manitoba extended north to 60° and Hudson Bay, Ontario to Hudson Bay, and **Ungava** (east of the bay) **added to Quebec.**
April 9. **Trade agreement** with some of **British West Indies;** preference of about 20 per cent.
July 22. Judicial committee of British privy council on appeal from stated judgment of Supreme Court, apropos of the Hebert case, decides Dominion has no power to pass a **uniform marriage law,** and that provincial laws may impose conditions affecting validity of contract. Does not decide directly whether marriage of two Catholics by other than a priest (forbidden by the church's **Ne Temere decree**) is binding if performed according to statute, but Supreme Court so declares, June 8, thus denying legal force of canon law.

1913. *April 24.* Closure rule is adopted in Commons in order to facilitate passage of government measure to build three dreadnoughts.
May 29. **Naval Bill** (which passes Commons on May 15) is rejected by the Senate.
Oct. 7. **Oil** is discovered **in Alberta.**

1914. *Feb. 2.* **Parcel-post system** is inaugurated.
April 7. Last spike is driven in **Grand Trunk Pacific Railway** between Winnipeg and Prince Rupert. Eastern (government) portion of the line finished by end of 1915; but the Grand Trunk does not assume operative control of this portion.
May 2. Arrival at Vancouver of ship with 396 **Hindus.** Admission denied; courts sustain the government. Hindus resist attempt to return them, but finally yield. More rioting at Hong Kong and seditious utterances on reaching India.

WORLD WAR PERIOD

May 29. Steamer *Empress of Ireland* sinks in the St. Lawrence River after collision; 1,024 lives lost.
Aug. 4. On outbreak of War **financial strain** is relieved by order in council making bank notes legal tender and temporarily irreclaimable in gold.
Aug. 22. **War Measure Act** puts the country on a hostile basis; authorizes censorship and espionage, government control of transportation, trading, manufacturing, and property.
Increase in tariff rates and excise on liquor and tobacco, and power to increase amount of Dominion notes are **first financial measures.** First **war credit** is $50,000,000 Great Britain also advances $60,000,000 up to March 31, 1915. Large voluntary contributions of money and supplies for many purposes: **Canadian Patriotic Fund,** established to care for soldiers and families, Belgian Relief Fund, Red Cross, etc.; work of women carried out largely through Imperial Order Daughters of the Empire.
Sept. 22–Oct. 1. **First Canadian contingent** of 33,000 men **embarks** at Quebec for England.

1915. *March 29.* Short-term **government loan** of $25,000,000 is oversubscribed. July 21, $45,000,000 on short-term notes borrowed in New York. Canadian credit continues excellent throughout war under financial management of Sir Thomas White.
April 8. **War Revenue Act:** tax on banknote circulation, trust companies, insurance, telegrams, traveling tickets, wine; also, increase in postage and stamp duties, and in the tariff.
June 9. **Dispensary liquor system** established in Saskatchewan; in force July 1.
July 21. **Prohibition approved** by referendum in Alberta; in force July 1, 1916.
Oct. 18. First through train on **Canadian Northern Railway** reaches Vancouver from Quebec; third transcontinental line, built up since 1896 by construction and absorption of existing lines; government has large interest.
Nov. 1. **Expeditionary force** raised to authorized limit of 250,000 men, and at end of year to 500,000 men; by end of the year 212,000 are under arms, of whom 118,922 have been sent overseas with loss of but one life in transport.
Nov. 22. **First domestic loan** for $50,000,000 (5%, 10 years); total subscription $114,000,000; allotment, $97,000,000.

1916. *Feb. 3.* Dominion **Parliament buildings** at Ottawa **burned;** possibly incendiary origin.
March 8. **Manitoba act** prevents more **bilingual schools,** and promotes end of existing ones; considered by French Canadians and foreign elements as contrary to 1897 compromise on schools.
June 1. **Prohibition** in effect in **Manitoba;** law of January 28, and referendum on March 13.
July 1. **Prohibition** in effect **in Nova Scotia;** chiefly affects Halifax as most of province already subject to temperance laws.
Sept. 11. **Quebec bridge** drops a span.
Sept. 12. **Second domestic loan** for $100,000,000 oversubscribed.
Sept. 16. **Prohibition** goes into effect in **Ontario** (law of April) as war measure, with referendum in June, 1919.
Nov. 2. Judicial committee of British privy council upholds regulation in Ontario for requirement of instruction primarily in English.
Nov. 11. Duke of **Devonshire governor-general.**
Sir **Sam Hughes,** minister of militia and defense, resigns on request; friction with premier and others in ministry.

1917. *Jan. 20.* **War expenditures** to date $444,000,000; war costing about $1,000,000 a day.
May 1. **Prohibition** in effect in **New Brunswick** (act of April 21, 1916).
June 6. **Laurier** refuses to join a coalition government, being **opposed to conscription.**
July 14. **Prohibition** in effect in **Yukon Territory.** This leaves Quebec only province where sale of liquor at retail is permitted.
July 25. Increase is made in **war-profits tax** (one half of profits between 15% and 20%; three fourths beyond 20%).
Aug. 29. **Compulsory Military Service Act;** affects men between 20 and 45; first class—unmarried men of 20–34; French-Canadian opposition.
Sept. 20. **Income Tax Act;** graduated from 4% on over $1,500 for unmarried men to 25% on above $100,000; income tax of 4% on corporations (see also July 25, above).
Military Voters' Act provides for voting during the war by all British subjects ordinarily residents of Canada, male and female, in active service.
War-Times Election Act gives franchise temporarily to near female relatives of men overseas, and disfranchises all of alien enemy birth or tongue naturalized since 1901.
Act to acquire rest of stock of Canadian Northern Railway.
Central span of **Quebec bridge** successfully raised to position.
Oct. 13. **Union ministry** is formed with **Borden premier;** 13 Conservatives and 10 Liberals; inner war cabinet has 5 Liberals and 5 Conservatives.
Dec. 6. **Explosion** of cargo of ammunition in **Halifax** Harbor destroys large part of city; 1,200 killed; suffering increased and rescue impeded by fire and blizzard.
Dec. 17. General election; Union government wins 153 seats on issue of "win the war"; opposition, led by Laurier wins 82 seats.
Dec. 24. **Prohibition** placed **on importation of intoxicating liquor** into Canada; prohibition of manufacturing held in reserve. Prohibition of interprovincial transportation issued April 1, 1918.

1918. *May 1–23.* **Strike in Winnipeg** of civic employees including firemen (unionized), sympathetic strikes of other laborers and threat, under I.W.W. and other **radical propaganda,** of general strike. Labor unrest during the year throughout the Dominion, under socialistic incitation; prominent question that of right of civic guardians to unionize.
May 24. **War Revenue acts;** increase in income, profits, excise, tariff, and other taxes; tax on matches, playing cards, motion-picture films, jewelry, automobiles, and mechanical musical instruments.
July. **Strike of postal employees** in Toronto.
Dec. 10–14. **Strike of Montreal police and firemen,** accompanied by rioting; right to unionize demanded by strikers. Association permitted, but no affiliation with other unions.
Dec. 31. Report (as revised December 3, 1919) that 595,411 **men** were **enlisted** or drafted in Canada **during the war,** of whom 418,052 sailed for England and 4,214 for Siberia.
Casualties: 63,786 deaths, 148,859 wounded.

1919. At request of Canadian government, British government ceases to confer **titles on Canadians.**
Jan. 18. Canada has two **delegates at the Peace Conference** at Paris.
Feb. 16. Laurier dies. August, **Mackenzie King** chosen his successor as leader of opposition.
March 19. Budget statement calls for unusually large expenditures for shipbuilding, roads, and railway equipment.
March 31. **Net public debt** $1,438,000,000, increase of $1,102,000,000 since March 31, 1914.
May–June. **Strike at Winnipeg,** including police, firemen, and other official servants, made the basis for revolutionary propaganda; all public utilities idle. Volunteers man street cars; returned soldiers act as police.
June 6. **New immigration law** increases restrictions, developing new policy.
July 7. **Act to assist returned soldiers** in settling on the land provides for government acquisition, by purchase or expropriation, and resale to soldiers.
Aug. 15. Prince of Wales lands in Canada for a tour which lasts until November.
Sept. 11. Parliament **ratifies the Treaty of Versailles,** including the League of Nations, of which Canada is a member.
Oct. 20. **Election** in **Ontario.** Prohibition retained. United Farmers party assisted by Laborites wins at polls and **United Farmers ministry** takes office November 1.
November. **Government takes over the Grand Trunk Railway,** making about 22,000 miles of government-controlled lines in Canada. Canadian Pacific the only important private line.

1920. *July 2.* **Sir Robert Borden resigns** as premier.
July 10. Arthur **Meighen** is chosen **premier.**
Oct. 20. **British Columbia votes** against prohibition, but **for government control of liquor sale.**
Oct. 25. Nova Scotia, Alberta, Manitoba, and Saskatchewan vote **to prohibit** the **importation of liquors** for beverage purposes, and on Oct. 27 all four provinces **declare for prohibition.**

1921. Population of Canada 8,788,483.
Jan. 26. Plans for **regulation of liquor traffic in** the Province of **Quebec** are announced. Liquor is to be sold only from Government depots in bottles.
March 19. Total **deficit on the railways** operated by the Government in 1920 was $70,000,000.
Dec. 6. **General election** in Canada results in an overwhelming triumph for the Liberals.
Dec. 30. Canadian Liberal government, under **W. L. Mackenzie King, takes office.**

1922. *March 8.* The Fourteenth Canadian Parliament opens with a **Liberal government under Premier King,** supported by 117 members. Opposed to him are the Progressives, numbering 66, the Conservatives, 50, and the Independents, 2.
March 24. Department of Justice rules that no **women senators** can be chosen without an amendment to the British North America Act.
March 29. The **King Government is supported** by the solid Progressive vote on a motion of lack of confidence proposed by Arthur Meighen.
July 5. The revised figures of the **decennial census** show an increase of 1,581,840 in the **population of the Dominion** since 1911.
Aug. 18. The Canadian cabinet asks for more information concerning the British call for **troops to defend the Dardanelles.**
Aug. 30. The Canadian **dollar touches par** for the first time since August, 1915.
Oct. 16. Great Britain has authorized Canada to deal directly with the United States in the framing of the **new naval treaty for the Great Lakes.**

1923. *Dec. 8.* After Dec. 31 the **Canadian government forbids American fishing vessels** to enter Canadian harbors except in emergency.

1924. *March 27.* W. L. Mackenzie King, Prime Minister, announces the recognition of the Russian Union of Soviet Socialist Republics.

1924 (*continued*).

May 16. **House of Commons adopts** the Liberal-Progressive-Labor Coalition governments' **low tariff budget,** providing for a reduction in the revenue from reduced duties on foodstuffs, fishing implements, iron and steel intended for the manufacture of farm or lumber machinery, and the placing of fertilizer on the free list. The total expenditures authorized amount to more than $400,000,000.

July 19. The Canadian Parliament, which has been in session since February, adjourns, passing in the last days the **Church Union Bill,** which provides for the union of the Presbyterian, Methodist, and Congregational churches, and the **Redistribution Bill,** which increases the membership of the House from 235 to 245.

Oct. 25. Returns in the **liquor plebiscite in Ontario** give a majority of over 40,000 for the Ontario Temperance Act.

1925. *Feb. 12.* It is announced that the Government has presented its **Fisheries Treaty** with the United States **for registration with the League of Nations.** It is signed by a Canadian Plenipotentiary and not by the British ambassador at Washington.

June 10. 8,000 Methodist, Congregational, and Presbyterian churches abandon their denominational organization and enter the Church Union of Canada.

Aug. 6. Five months' **strike in the Cape Breton coal fields is terminated** by an agreement and a six months' tentative contract during which period an inquiry into the coal industry shall be made.

Oct. 29. The **elections in Canada** result in the Conservatives gaining 116 seats, the Liberals 100, the Progressives 21. Premier King is thus left in minority.

Nov. 4. By the Redistribution Act of 1924, the membership of the House of Commons is increased from 235 to 245, the Western Provinces having twelve more representatives and Nova Scotia two less.

1926. *Jan. 7.* The **Dominion Parliament convenes** at Ottawa, the Progressive party under Robert Forke holding the balance of power between Conservatives and the Liberal government of Premier King.

June 28. Premier Mackenzie King and his Government resign when Governor-General Byng refuses to dissolve Parliament.

June 29. The temporary Conservative ministry under Arthur Meighen suffers a technical defeat, but refuses to resign.

July 1. **Canada re-establishes the gold standard** and penny postage goes into effect.

July 2. On the recommendation of Premier Meighen, Parliament is dissolved.

July 13. A new Conservative government is formed with Arthur Meighen as Prime Minister and Secretary for External Affairs.

Sept. 15. As a **result of general elections** held September 4, the Liberals obtain 119 seats, the Conservatives, 91; the Liberal Progressives, 11; the Progressives, 8; the United Farmers, 11; and the Labor and Independents, 5.

Sept. 25. The new Ministry, with Mackenzie King as Prime Minister and Secretary for External Affairs, is sworn in.

Nov. 10. By an order passed by the Cabinet, **Hon. Vincent Massey becomes Canada's first Minister to Washington.**

1927. *March 18.* Premier Mackenzie King announces that **reciprocity between United States and Canada,** so far as it affects the exchange of "natural products," will be part of the Dominion's trade policy.

March 29. The Legislature passes a bill abolishing prohibition in Ontario, and providing for government control of liquor.

Oct. 1. **International airplane postal service** between United States and Canada **is inaugurated.**

Nov. 9. The Privy Council of Great Britain confirms the decision of the Supreme Court of Canada in ruling that gold and silver in the Hudson's Bay Company's land is owned by the Crown in the right of the Dominion government.

1929. *Feb. 22.* The **House of Commons approves** the general treaty for renunciation of war (**Kellogg Anti-War Pact**) signed in Paris the previous summer.

March 4. The Legislative Assembly defeats a bill giving the women right to vote in provincial elections by a vote of 50 to 16.

May 16. The **Government refuses** the American request **to stop exportation of liquor,** but will permit American customs officers to be stationed on the Canadian side of the border.

Oct. 30. The Conservative Government under Premier G. Howard Ferguson is re-elected in Ontario province for another term on a platform of continued government control of the sale of liquor.

Oct. 31. By a majority of 20,000, Nova Scotia votes to end prohibition and establish the sale of liquor under government control.

1930. *May 29.* The Government passes an amendment to the Export Act making it **illegal to export liquors to the United States.**

July 28. The **Liberal government** under Prime Minister W. L. Mackenzie King is **defeated** by the Conservatives under R. B. Bennett, who win 137 to 108.

Sept. 16. In an attempt to decrease unemployment by increasing home industries, a tariff bill affecting one hundred and thirty items is presented to Parliament by Premier Bennett.

1931. *Feb. 9.* The **Earl of Bessborough is appointed Governor-General.**

March 12. At the opening of Parliament, Premier Bennett recommends the creation of a tariff board and further increase of tariff duties.

June 18. Premier Bennett's **budget** is **adopted.** This provides for upward revision of the tariff in three classes: (1) Preferential for Great Britain and most of the Empire. (2) Intermediate for those nations having commercial agreements with Canada. (3) General for all other countries, in which the rates are substantially increased.

Oct. 19. **Canada prohibits the export of gold** except by license from the Minister of Finance.

Nov. 13. Eight members of the Canadian Communist party are found guilty of a seditious conspiracy and are sentenced to prison terms at the end of which they are to be deported.

Dec. 17. The Government gives France the necessary six months' notice of the Dominion's intention to terminate the Franco-Canadian trade treaty of 1922.

1932. *April 6.* Edgar N. Rhodes, Minister of Finance, introduces a **new tax bill** into Parliament. Increase of sales tax and import excise rates are provided, exemptions are lowered, the income impost is raised, and appropriations are decreased $25,400,000.

July 21–Aug. 20. **Imperial Economic Conference,** attended by delegates from nine British nations, is **held in Ottawa.** Twelve separate bilateral trade agreements are signed, the outstanding concessions in which are the granting of a free market for all the natural products of the dominions by Great Britain, and her agreement to levy a tariff on corresponding commodities from foreign countries. In return, the dominions put many of Great Britain's manufactured exports on the free list and give others new preferences.

Aug. 6. The enlarged **Welland Canal,** connecting Lake Erie and Lake Ontario, is **dedicated.**

1933 *March 21.* A deficit of $53,608,000 is estimated for the fiscal year ending March 31. Minister of Finance, Edgar N. Rhodes, announces a proposed increase in income and excise taxes.

May 12. A commercial treaty with France is signed granting reciprocity in many goods.

July 30. For the first time in twenty years Canada negotiates a £15,000,000 sterling loan in the London market.

Aug. 11. **Canada's leading railway unions unite in a co-operative association** for industrial, economic, and legislative purposes.

Aug. 24. Prime Minister Bennett plans to invoke the Ottawa agreements to force Great Britain to cut Russian imports in half.

Sept. 14. Canada notifies the World Disarmament Conference of her willingness to accept 20,801 as the maximum strength of the army in peace time. Armed naval forces are estimated at 2,461 and armed air forces at 3,200.

Nov. 10. American currency is barred at Canadian post offices as the American dollar is below par in relation to Canadian money.

Nov. 12. The Royal **Commission** on Banking and Currency **recommends the establishment of a central bank** to extend intermediate and short-time agricultural credit.

NEWFOUNDLAND

Newfoundland is nearer Europe than is any other land in America. It was discovered by John Cabot in 1497. In 1583 Sir Humphrey Gilbert declared it a possession of Queen Elizabeth, and, though claimed by France, it has been held by England ever since. In 1869 the people of Newfoundland, then a separate island colony of Great Britain, voted against union with Canada. In 1918 it was made a dominion of the empire. Responsible government has existed since 1885. The governor, appointed by the crown, is assisted by an Executive Council of not more than 10 members. Parliament consists of a Legislative Council of not more than 24 members, and an Assembly of 27 members.

As a result of the serious financial condition of the dominion and the disorders consequent upon this, a Royal Commission in 1933 recommended that the Newfoundland Parliament be suspended and all legislative and executive power be vested in a Governor, advised by a special commission of six, three appointed by the United Kingdom and three by Newfoundland. Laws to be enacted by the Governor on the advice of the commission, but in an emergency the Governor can act on his own initiative.

The fisheries are the chief industry, producing about $10,000,000 annually. The forests are extensive and valuable. The mineral deposits include iron, coal, copper, silver, lead, and gold. In religion, the population is divided almost equally between Roman Catholics, Anglicans, and Methodists, while a few adhere to other communions. Schools and colleges are maintained by the leading religious bodies.

The **area** is 42,734 square miles (with Labrador, 161,100). The **population** in 1931 was 277,285.

Labrador, lying farther east than any other part of the continent, is a dependency of Newfoundland. There are latent resources of value in its forests, fisheries, and mines. Its **area** is about 118,400 square miles, and known **population** (1931) 4,264.

Chronology

1497. Cabot's voyage (see United States).

1500–1502. Cortereal's voyages (see United States). These voyages followed by Portuguese, English, French, and Basque fishermen on the Banks. **St. John's** developed as a free port, frequented especially by English merchantmen.

1583. *Aug. 3.* **Sir Humphrey Gilbert** puts in at St. John's, **takes possession** of the colony.

1610–1621. Various English colonies started.

1637. *Nov. 13.* Grant of island to Hamilton, Kirke, and others.

1662. French settlement at Placentia.

1699. *May 4.* Act to encourage trade to Newfoundland; control by fishing admirals.

1713. *March 31* (*April 11, N. S.*). **Treaty of Utrecht**; France relinquishes claim to island, retains limited right to fish and dry fish on coast. Result is French claim to exclusive rights on the "French Shore."

1729. Henry Osborne, first governor.

1783. *Sept. 3.* Treaties of Versailles and Paris; French fishing right shifted; Americans retain right to fish and dry fish on the island; islands of Saint Pierre and Miquelon ceded to France.

1818. *Oct. 20.* American fishing rights on coast, lost by War of 1812, are restored by convention as to portions of Newfoundland and Labrador, with right to dry fish in unsettled sections.

1832. *Aug. 1.* Act of Parliament creating a **representative assembly** in Newfoundland.

1855. **Responsible government** inaugurated.

1867. Dominion of Canada formed; Newfoundland holds aloof.

1877. *Nov. 23.* Newfoundland's share in the **Halifax award** (see United States) is $1,000,000.

1890. *Nov. 15.* Bond-Blaine reciprocity treaty with United States drafted; imperial consent is withheld at suggestion of Canada.

1893. *May 16.* **Reid contract** for transinsular railway, with large land grant.

1895. *April.* Conference for union with Canada fails over debt question.

1898. Further contract with **Reid** negotiated, giving him virtual control over development of the island.

1900. *Nov. 8.* Government responsible for Reid contract defeated at election; (Sir) Robert Bond becomes premier, and Reid agrees (July 19, 1901) to return the telegraph, modify land grant, and permit final reclamation of railroad.

1902. *Nov. 8.* Bond-Hay reciprocity convention with United States. Rejected by U. S. Senate. Newfoundland enacts measures to hamper American fishing rights under treaty of 1818.

1904. *April 8.* **French-British treaty** puts end to "French Shore" controversy, which has been source of many reprisals (Bait Act of 1887); France abandons all rights in Newfoundland (except Saint Pierre and Miquelon Islands).

1909. *Jan. 27.* Fisheries convention (see United States).

1910. *Sept. 7.* Fisheries award (see United States).

1914. At outbreak of **World War** island contributes men to army and naval service.

1917. *Jan. 1.* **Prohibition** goes into effect under referendum of November 4, 1915.

1918. *Jan. 5.* Colony given title of **Dominion** by home government.

May. Compulsory Military Service Act makes possible maintenance of regiment at full strength.

1919. *Jan. 18.* Newfoundland is represented at the Peace Conference by the premier. Is not formally treated as party to Treaty of Versailles or as a separate member of League of Nations.

1922. *March 17.* Government sells $6,000,000 bond issue.

1923. *Jan. 17.* **Iron mines** in Wabana district **idle** following suspension of German contracts because of Ruhr invasion by French.

May 8. **General election;** Government wins.

July 23. Premier Sir Richard Squires resigns.

Dec. 26. Premier W. R. Warren publishes **grave charges against** former premier **Squires.**

1924. *April 24.* A vote of no confidence is carried in the Newfoundland Legislature.

May 10. A **new Cabinet is formed** with Albert Hickman as premier.

A law regulating the sale of liquor, similar to that of Quebec, is adopted.

1925. *April 9.* Sir John Crosbie, Minister of Finance, reports to the Legislature a surplus for the coming year.

1926. *May 23.* Premier Walter S. Monroe requests the resignation of two ministers, Russell and Bradley, on a charge of plotting to overthrow the Ministry.

1927. *March 1.* The **area under the jurisdiction of Newfoundland is trebled** by the decision of the Judicial Committee of the Privy Council awarding to it 120,000 square miles of Labrador.

1928. *Oct. 29.* Women exercise their right to vote for the first time at general elections.

1929. *June 14.* Sir Patrick McGrath, President of the Legislative Council, dies at the age of sixty.

1932. *Feb. 11.* The Premier is assaulted while in his office by a rioting group of unemployed.

April 5. A **mob** of ten thousand civilians, demanding investigation into charges that minutes of the Executive Council have been falsified, **stones the House of Assembly.** A second attack on April 6 is easily subdued but it is indicated that the Government will resign.

June 11. The **United Newfoundland party,** under the leadership of F. C. Alderdice, **wins in the general elections.** Mr. Alderdice takes office as Premier and Minister of Finance on June 28.

July 26. Following a night of disorders in St. John's, a syndicate of Canadian banks announces that it will advance $100,000 to finance a relief program among the unemployed.

1933. *Nov. 21.* **Plans** are presented in the British House of Commons **for the reversion** of Newfoundland **to** the status of a **Crown Colony.**

Dec. 7. By a vote of 227 to 38 the British **House of Commons adopts** a financial **resolution** preceding general legislation **to withdraw self-government from Newfoundland** until its finances are restored.

BERMUDA ISLANDS

The Bermudas are a group of over 300 islands in the Atlantic, 580 miles southeast of Cape Hatteras. They are not strictly reckoned as a part of the West Indies and were once attached to Virginia. They constitute a crown colony, and are exceedingly important, both as a strongly fortified station of the British fleet and because of their commanding strategic position. The permanent military force comprises an average of 3,000 men of all branches. The chief exports are onions, potatoes, and other vegetables. Of late years these islands, with their delightful climate, have become a tourist's resort much visited from the United States. **Area** about 19 square miles, **population** (1931) 27,789.

BRITISH WEST INDIES

Columbus on reaching Guanahani (now generally identified with San Salvador Island) supposed he had found the Indies. Thus arose the name West Indies applied to the great archipelago curving from Florida and Yucatán to South America, including thirty major islands and many groups of islands. The political and international relations of the West Indian islands until the end of the nineteenth century were chiefly European.

Among these islands the Spaniards coasted and colonized until no other part of the New World was so well known and so fully occupied by colonists. The easy conditions of the climate, the gentleness of the aborigines, the richness of the islands, and the ease of conquest, made the Spaniards masters for a century. Then other European powers began to dispute these rich possessions. From 1600 to 1650 the French and English occupied several islands not colonized by Spain.

Most of the natives of the islands were killed off by Spanish authorities; and Negro slaves were introduced by all the colonists, thus fixing the curse of slavery on one of the fairest parts of the globe. As the Spanish monarchy declined, the islands were detached from her empire. The British seized Jamaica in 1655. Denmark, France, and Holland took and held islands or groups. In 1898 the United States conquered and annexed Puerto Rico. The island of Haiti has had an independent government since about 1795. Cuba — last remnant of the Spanish American empire — was made nominally independent by the war of 1898. The greater number of islands have passed into the possession of Great Britain, but the United States is at present the most active and strongest power in the Caribbean region.

BAHAMA ISLANDS

The Bahamas are a group of about 30 inhabited and over 600 uninhabited islands northeast of Cuba. Guanahani, one of the Bahamas, was the first land discovered by Columbus in his first voyage, 1492. It was named by him San Salvador. The islands were without civilized inhabitants until the arrival of English colonists in 1629. Then they were objects of naval warfare and conquest until their final cession to Great Britain in 1783. Nassau, the capital, on New Providence island, has a fine harbor and was the headquarters of blockade runners during the Civil War. Fruits and vegetables are exported; also shells, pearls, and ambergris. There are sponge and turtle fisheries. The **area** of the group is 4,404 square miles. The **population** in 1931 was 59,828.

BARBADOS

Barbados is the most eastern of the West Indian islands. Though geographically one of the Windward Islands it is administratively a colony by itself, having its own governor assisted by a Legislative Council of 9 members, all appointed by the crown, and its own Assembly of 24 members annually elected by the people. Most of the inhabitants belong to the Church of England. Sugar and cotton are the chief products. Also manjak, a kind of asphalt, is exported. Violent hurricanes are frequent and destructive. The **area** is 166 square miles and the **population** (1931) 173,674.

JAMAICA

Jamaica, one of the Greater Antilles, from its history, size, and relative situation, is the most important of the British West India islands. It was discovered by Columbus in May, 1494. Fifteen years later the first colony was planted by the Spaniards. Columbus called the island Santiago, but the name was soon replaced by the native "Jamaica," signifying the "country of springs." In the time of Cromwell, Admiral Penn at the head of an English fleet wrested Jamaica from the Spaniards. All subsequent efforts of Spain to reconquer it were failures.

The island soon became known for its sugar production beginning in 1673. The slave trade furnished the means of developing the industry. The slaves multiplied and some escaped to the Blue Mountains. These so-called "maroons" made a descent upon the plantations in 1715 and a servile war continued for 23 years. The authorities made peace by many concessions.

The sugar industry increased in importance. During the first three quarters of the eighteenth century more than five hundred thousand slaves were imported. In 1795 the slaves revolted, but they were suppressed. The island was very prosperous; some wealthy Jamaican planters settled in New England and elsewhere. The trade between Jamaica and Great Britain was profitable.

In 1807 the British government totally abolished the slave trade to all its colonies. The antislavery reformers headed by Wilberforce next turned upon slaveholding, and in 1834 secured an act of Parliament for the abolition of slavery in all the British colonies. At that time there were 322,000 slaves in the island. These were first raised to apprenticeship for four years, and then to freedom. The masters were indemnified with a payment of $28,362,000 by the British Parliament. The abolition of slavery and other changes in the trade relations of the West Indies caused a decline from which the island has never recovered.

In 1692 Port Royal, the old capital, was destroyed by earthquake and Kingston became the seat of government. Cholera ravaged Jamaica in 1846 and some of the principal settlements lost the greater part of their inhabitants. A Negro insurrection in 1865 was put down by Governor Eyre with a strong and brutal hand. In 1907 an earthquake destroyed a great part of the town of Kingston and killed nearly 1,000 persons.

The island is ruled by a governor, assisted by a Privy Council and a Legislative Council of 29 members, 14 of whom are elected. Jamaica is divided into 15 parishes, in each of which an elected board administers local affairs. The government maintains elementary, secondary, and industrial schools; also colleges for training teachers. There is no state church. Anglicans, Baptists, Methodists, Presbyterians, Roman Catholics, Moravians, Congregationalists, stand as to numbers, in the order named.

The chief exports in 1931 were bananas, sugar, coffee, coconuts, pimento and logwood extract.

The **area** is 4,450 square miles and the estimated **population** (1931) 1,050,667.

Dependent upon Jamaica are **Turks** and **Caicos Islands** (area 165 square miles, estimated population (1931) 5,612), two southern groups of the Bahamas. Their chief industry is saltmaking. The **Cayman Islands** (area, 89 square miles, population 6,182) also are attached to Jamaica. They export coconuts, rope, turtle shell, and cattle.

Chronology

1924. *June 2.* Sir Leslie Probyn, Governor of Jamaica, retires, and Sir Samuel Herbert Wilson, formerly Governor of Trinidad, succeeds him.

1932. Sir Ransford Slater is appointed Governor.

LEEWARD ISLANDS

The Leeward Islands, so called from their relation to the trade winds, are the northern half of the prolonged group known as the Lesser Antilles. The principal British islands are Dominica, Antigua, St. Christopher (St. Kitts), Nevis, Anguilla, Montserrat, Barbuda, and Redonda. The British Virgin Islands, comprising all those not included in the Virgin Islands of the United States, are a part of the Leeward group. The Leewards have one governor, appointed by the crown, and one Federal Legislative Council of 20 members, one half appointed and the other half elected. Most of the schools are maintained by the various churches. Sugar, molasses, lime juice, cocoa, and onions are articles of export. The entire **area** is 715 square miles and the **population** (1931) 127,829. Less than 5 per cent of the population are whites.

TRINIDAD

Trinidad lies directly opposite the northern mouth of the Orinoco. Discovered by Columbus in 1498, it was held by Spain until its capture by Great Britain in 1797. Most of the inhabitants are of mixed race, descendants of Europeans and Africans, and it is estimated that one third of the population is composed of East Indians and their descendants. Three fourths of the people are Christians, nearly one half of whom are Anglicans and the other half Roman Catholics. From the large asphalt lake, 94,584 tons of asphalt were exported in 1931. Other exports were cocoa, sugar, and crude oil. The culture of rubber, cotton, and tobacco has been introduced into Tobago and the cacao industry is receiving increasing attention. Trinidad is ruled by a governor, aided by an Executive Council and a Legislative Council. The **area** is 1,864 square miles and the total **population** (1931) of Trinidad and Tobago colony was 412,783.

Dependent upon Trinidad is **Tobago,** a popular resort of American and British pleasure seekers. Area, 114 sq. miles; population (1931), 26,407.

WINDWARD ISLANDS

The Windward Islands, so called from their supposed situation relative to the trade winds, are the southern half of the prolonged group known as the Lesser Antilles. The principal British islands are Grenada, St. Vincent, and St. Lucia. In connection are the group of the Grenadines. All are under one governor, but otherwise each island conducts its own affairs. In St. Lucia most of the schools are under Roman Catholic control, aided by government grant; in the other islands they are maintained by the government. Cocoa, nutmegs, spices, and cotton are the chief products. The entire **area** is 516 square miles and the **population** (1931) 189,000.

BRITISH GUIANA

British Guiana is situated between Dutch Guiana, Brazil, and Venezuela. It was taken from the Dutch in 1803. A dispute with Venezuela as to the boundary threatened complications with the United States in 1895. The matter was settled by direct arbitration with Venezuela. Gold mining and diamond mining are carried on. The chief exports (1931) are sugar, diamonds, rice. Authority is in the hands of a British governor, who is assisted by an Executive Council and a Legislative Council.

The **area** is 89,480 square miles and the **population** (1931) is 310,933. The Immigration Department stated (1931) that there were 131,919 East Indians in the colony.

BRITISH HONDURAS

British Honduras was originally a settlement of British logwood cutters made about 1638. In reality it was fortified by England as a convenient point from which to attack Spanish commerce. By the treaty of 1763 it was agreed that Great Britain should remove her fortifications from the Bay of Honduras, and in 1783 Great Britain promised to give it up altogether. British sovereignty, however, was established upon the defeat of the Spaniards in 1798. This settlement led to difficulties with the United States, which were enhanced by the Clayton-Bulwer Treaty of 1850. This part of Central America was called "His Majesty's Settlement in the Bay of Honduras." It yields large quantities of mahogany and logwood. It is now a crown colony with an **area** of 8,598 square miles and a **population** (1931) of 51,347.

FALKLAND ISLANDS

The Falkland Islands are a group of about 200 islands situated in the South Atlantic, 250 miles northeast of Tierra del Fuego, and constitute a crown colony. They were discovered in 1592, and have been claimed by the French, Spanish, and British. The latter have held them since 1833. They are now a crown colony. The chief industries are sheep farming, raising of horses, and the whale fisheries. The leading exports (1931) were whale produce, wool, skins and hides. A decisive naval battle was fought off these islands in 1915, resulting in the destruction of the German squadron. The **area** of the islands is 4,618 square miles and the **population** (1931) 2,392.

BRITISH DOMINIONS AND POSSESSIONS IN THE PACIFIC

COMMONWEALTH OF AUSTRALIA

Historical Outline

The continent of Australia became known to Europe through the captain of the Dutch ship **Duyfken** in 1606. In 1770 Captain James Cook, the

great navigator, landed on the southeast coast, named many places, and hoisted the British flag at Botany Bay; and the country was accepted as a British possession. In 1788 a penal settlement was established at Botany Bay. Other such settlements were started at Sydney and elsewhere. Opportunities for sheep farming and the natural advantages of the country attracted many other settlers, who bitterly resented the importation of felons sent out on the transportation system. Their resistance was effectual. Few convicts were sent out after 1837, and none after 1867.

The sentiment for autonomy grew strong during the administrations of Sir Thomas Brisbane and Sir Ralph Darling. The discovery of gold in 1851 was followed by a great influx of population. The colonies of Australia developed into flourishing communities. Both the Commonwealth as a whole and the various states have tried many experiments in progressive legislation and have adopted invalid and old-age pensions, advanced land legislation, and labor laws.

During the World War Australia supported Great Britain with large contingents of troops, and incurred a debt of nearly a billion dollars. The Australian cruiser *Sydney* was responsible for the destruction of the German cruiser *Emden*, which was seriously threatening British commerce. At the end of the war, Australia received a mandate for the former German possessions south of the equator with the exception of Samoa and Nauru.

During the war the Labor party dominated the government, but in 1923 a Nationalist-Country cabinet under S. M. Bruce was formed which lasted until 1929, when the Labor party returned to power with J. H. Scullin as Prime Minister. The chief problems which the government had to face were those connected with labor and the protective tariff. Of pressing importance, too, was financial rehabilitation and the necessity of meeting payments on the federal and state debts, a portion of which had been assumed by the federal government. In 1931 Premier Lang of New South Wales repudiated the interest on state indebtedness, but this obligation was assumed by the federal government. In the same year a plan for economic and financial rehabilitation was adopted which provided for stringent economies, reduction of interest rates, and particularly reductions in pensions, wages, and salaries.

The Labor Government under Scullin fell, and as a result of a general election a new ministry under Joseph A. Lyons was formed which attempted to deal with the financial situation, still further complicated by the refusal of the Lang Government in New South Wales to allow the collection of taxes in that state. Premier Lang was removed and his party defeated at a general election, and the policy of financial rehabilitation continued.

Organization

The Commonwealth of Australia was proclaimed by Queen Victoria on September 17, 1900, on a constitution enacted by the British Parliament at the request of the colonies concerned. It was inaugurated at Sydney, January 1, 1901. The Australian federation is similar to that of the United States, and was accomplished only after much opposition and long discussion.

The Commonwealth is composed of the five continental states of New South Wales, Victoria, Queensland, South Australia, Western Australia, and the insular state of Tasmania. In 1911 South Australia transferred to the Commonwealth the Northern Territory, with an area of 523,620 square miles and a white population (1933) of 4,860. At the same time the Federal Capital Territory of 912 square miles, with a population of 1,714, was transferred to the Commonwealth by New South Wales. In 1917 this Federal area was increased to 940 square miles when a magnificent capitol was built and Parliament opened in 1927 by the Duke of York. Each state has its own local government, presided over by a governor appointed by the crown, who is assisted by a council of ministers. Each has an upper and lower legislative house. In each state every man and woman over 21 years of age is entitled to vote, unless disqualified.

Government. By the constitution, approved by popular vote of each state and by the British Parliament, legislative power is exercised by a federal Parliament, consisting of the king, a Senate and a House of Representatives. The king is represented by a governor-general, appointed by the crown, and controlled in most of his executive functions through a Council of the state ministers, who constitute a cabinet. These ministers in 1932 were: Prime Minister and Treasurer; Attorney-General, Minister for External Affairs and for Industry; Minister without Portfolio; Minister for Defense; Postmaster-General, Minister for Trade and Customs; Vice-President of the Executive Council; Minister for the Interior; Minister for Commerce; Minister for Health and for Repatriation, and three honorary ministers. The Senate is composed of 6 senators from each state, elected for 6 years, one half retiring every 3 years. The House is as nearly as possible twice as numerous as the Senate, and the members are chosen for three years by universal adult suffrage, the number from each state being proportioned to its population, save that no state shall ever be represented by less than five. The legislative powers of the Parliament are ample.

In operation the Australian government is carried on by ministers responsible to Parliament, the governor-general being a figurehead; a federal court exercises the power to annul statutes of the states and of the union without appeal to Great Britain, unless it certifies the case itself for imperial decision.

Religion. There is no state church. The Church of England leads in number of communicants. Then come Roman Catholics, Methodists, Presbyterians, Lutherans, and Baptists in the order named.

Industry and Labor. Agriculture, cattle and sheep raising, dairy farming, and mining are the chief occupations. The chief exports in 1931–32 were wheat, gold, flour, butter, beef, lead, skins and hides.

Education is in the hands of the various states and is in most cases free and compulsory. In 1930 there were 10,257 state schools, with 801,729 pupils. In addition there are numerous private schools, largely denominational or technical, and schools giving special training. In each state there is also a university.

Defense. From 1911 to 1929 a citizen army was recruited by universal, compulsory, military training. Since 1929 the forces have been on the basis of voluntary enlistments, and permanent troops are maintained for the purpose of instructing and administering the militia forces. In 1932 the strength of the permanent force was 1,536 and the military force 28,000. In 1911 the Australian navy was established, which in 1932 had in commission two 10,000 ton cruisers, *Canberra* and *Australia*, the seaplane carrier *Albatross*, and the ship *Tatu*. The personnel comprised 3,000 men and officers. There is a royal Australian air force consisting of 102 officers and 788 men, and a citizen air force of 260.

For area and population, see page 304.

NEW SOUTH WALES

New South Wales was the earliest settled and is now the most populous of all the Australian states. In 1840 New Zealand was separated from it and organized as a separate colony. Responsible government was established in 1855. The general election of 1904 was the first in the state in which women were entitled to vote. The permanent capital of the Commonwealth is located in New South Wales in the Federal Capital Territory, where a small city (Canberra) was built far from all the centers of population. The state is entitled to 27 members in the Commonwealth House of Representatives. The **area** is 309,432 square miles. The **population** in 1933 was 2,601,104.

VICTORIA

Victoria is the most southern and, in territory, the smallest of the continental states. It was permanently colonized in 1835, when Melbourne was founded. Responsible government dates from 1855. 98% of the inhabitants above fifteen can read and write. Victoria is entitled to 21 members in the House of Representatives of the Commonwealth. Melbourne, with its suburbs, had in 1933 a population of 992,048. The **area** is 87,884 square miles, a little more than one thirty-fourth of all Australia. The **population** in 1933 was 1,820,360.

QUEENSLAND

Queensland is the most northeasterly of the states. It was colonized in 1825 and separated from New South Wales in 1859, when responsible government was conferred. Literacy is high, 98% of the population above 15 years of age being able to read and write. Queensland is entitled to 10 members in the House of Representatives of the Commonwealth. The **area** is 670,500 square miles; **population** in 1933, 947,789.

SOUTH AUSTRALIA

South Australia occupies the southern central part of the continent, bounded on the east by Victoria, New South Wales, and part of Queensland, on the north by the Northern Territory, and on the west by Western Australia. It was made a British province in 1836. Women were granted the franchise in 1894. It is entitled to 7 members in the Commonwealth House of Representatives. The **area** is 380,070 square miles. The **population** in 1933 was 580,987.

WESTERN AUSTRALIA

Western Australia occupies all the western part of the continent. The first settlement was planted on the Swan River, in 1829. Responsible government was granted in 1890. This was the last of the states to join the Federation. It has 5 members in the House of Representatives. The **area** is 975,920 square miles. The **population** (1933) was 438,948.

TASMANIA

Tasmania is separated from Australia by Bass Strait, about 150 miles in width. In 1642 it was discovered by the Dutch navigator Tasman, whose name it bears. He called it Van Diemen's Land, for a Dutch governor of Java who claimed the island for Holland. The Frenchman Marion-Dufresne visited the island in 1772, and provoked the natives to hostility. Five years afterward Captain Cook anchored in Adventure Bay. Thereafter came a brief contest among representatives of different European powers for the right of dominion. Captain Bass circumnavigated the island in 1798. Because of his favorable description, the site of Hobart Town, now Hobart, was afterward chosen.

In 1803 a colony was planted on the Derwent. In the same year a penal colony was established at Port Phillip, Australia, but was transferred to Hobart Town in 1804. The natives were constantly hostile, but were brought to subjection in 1830, after which the aboriginal race rapidly dwindled.

Tasmania was a dependency of New South Wales until 1825. Then the inhabitants declared themselves independent, and sought to establish a civil government of their own. Next, they successfully resisted the further importation of criminals, which ceased in 1853. In 1856 responsible government was put in operation. In 1901 it became one of the states of the Commonwealth of Australia. Tasmania now has five members in the House of Representatives.

The island is rich in metallic ores and coal. The main crops are oats, wheat, potatoes, fruit, and hay. A relatively large state debt has been contracted for public improvements. The **area** is 26,215 square miles; **population** (1933) 227,605.

NEW GUINEA OR PAPUA

British New Guinea, now officially called the Territory of Papua, was transferred to the Australian Commonwealth in 1905. Situated on the other side of the island-studded Torres Strait at a short distance from Australia, the political destiny of New Guinea vitally affected the inhabitants of Queensland and of all the Australian states. It is governed by a lieutenant governor and a council of nine, nominated by the governor-general of Australia. It has some valuable mineral fields, particularly of copper and gold.

The **area** is 90,540 square miles and the estimated native **population** (1932) was 276,000.

Chronology — Australia

1605. **Torres,** for Spain, sails through Torres Strait. Dutch vessel *Duyfken* is traditionally supposed to have reached north coast of Australia in March, 1606.

1616. Hartog is on the west coast. Other Dutch voyages follow.

1642. *Nov. 24.* **Tasman** discovers Van Diemen's Land (**Tasmania**), and lands on New Zealand (December).

1644. Tasman is on north and northwest coast of Australia, which he names New Holland.

1699. Dampier is first English navigator on west side of the continent.

1770. *March.* Capt. James **Cook** for England, after exploring New Zealand coast, reaches Botany Bay on the east coast of Australia, which he explores northward to Torres Strait, taking possession for England and naming the region **New South Wales.**

1783. *June 30.* Act of Parliament for **transportation of criminals** over seas. Order in Council in 1786 selects east coast of Australia as place.

1788. *Jan. 26.* Arthur **Phillip,** with 750 convicts and detachment of marines, begins **settlement** of New South Wales in **Sydney** (Cove) of Port Jackson; military government.

1791. Beginning of transportation of Irish political convicts; very unpopular.

1797. **Coal is discovered** and Newcastle founded.

1804. *Feb. 20.* **Settlement of Van Diemen's Land** begun at Hobart Town by Collins. Launceston is started two years later. Island becomes penal settlement.

Insurrection of convicts in New South Wales.

1808. *January.* Military revolt in New South Wales; governor deposed.

1810. Population estimated at 11,500.

NINETEENTH-CENTURY PERIOD

1823. *July 19.* **Act for government** of New South Wales: court reform; jury; council, while remaining appointive, has consultative legislative and financial power; separate governorship for Van Diemen's Land; favors immigration of freemen.

1826. Moreton Bay (Brisbane) made a penal colony, but real **settlement of Queensland** begins with advance of interior pastoral exploration to the Darling Downs. In 1840, penal settlement is broken up.

1828. *July 25.* Act enlarges council of New South Wales to 15, with greater legislative powers.

1829. White population of New South Wales, 35,610.

May 14. Act for **settlement of Western Australia.** In June expedition under Stirling lands; starts **Perth** as capital.

1834. *Aug. 15.* Act authorizing **province of South Australia;** transportation of convicts forbidden there; complicated government with land commissioners sitting in London.

AUSTRALIA
AND
NEW ZEALAND
Scale of Statute Miles
0 100 200 300
Kilometers
0 100 200 300 400
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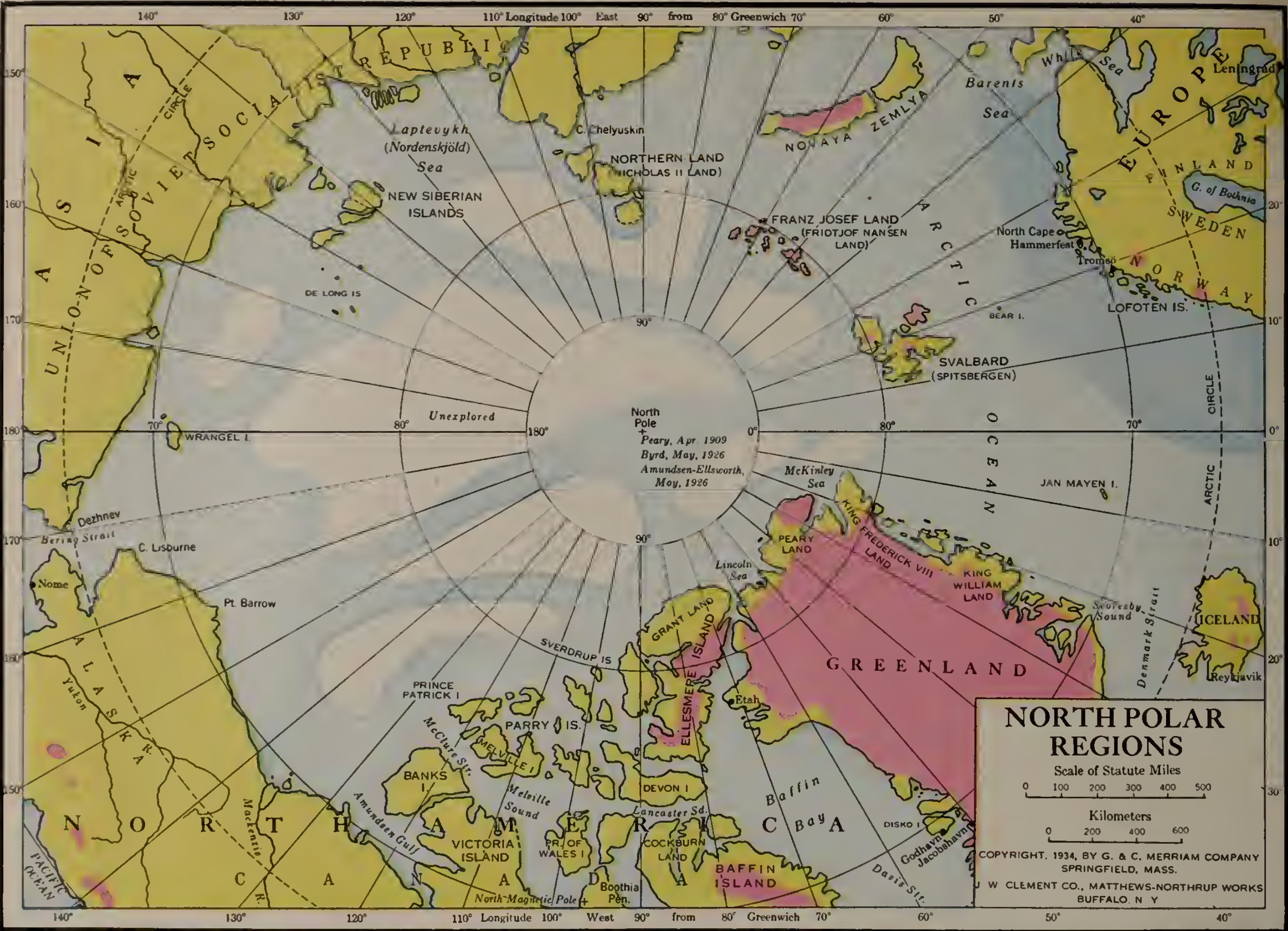
SPRINGFIELD, MASS
J W CLEMENT CO. MATTHEWS-NORTHRUP WORKS
BUFFALO, N Y
Longitude East from Greenwich
DUTCH EAST INDIES
ARAFURA SEA
TIMOR SEA
SUNDA ISLANDS
CORAL SEA
SOUTH PACIFIC OCEAN
INDIAN OCEAN
TASMAN SEA
GREAT AUSTRALIAN BIGHT
GULF OF CARPENTARIA
GREAT BARRIER REEF
TROPIC OF CAPRICORN
WESTERN AUSTRALIA
NORTHERN TERRITORY
QUEENSLAND
SOUTH AUSTRALIA
NEW SOUTH WALES
VICTORIA
TASMANIA
FEDERAL TER.
PAPUA
NEW GUINEA (Australian Mandate)
SOLOMON ISLANDS PROTECTORATE (Br.)
NEW CALEDONIA (French)
GREAT SANDY DESERT
GIBSON DESERT
GREAT VICTORIA DESERT
ARUNTA DESERT
NULLARBOR REGION
Bass Strait
Perth
Darwin
Adelaide
Melbourne
Sydney
Brisbane
Canberra
Hobart
NEW ZEALAND
Same Scale as Main Map
NORTH ISLAND
SOUTH ISLAND
Auckland
Wellington
Christchurch
Dunedin


NORTH POLAR REGIONS
Scale of Statute Miles
0 100 200 300 400 500
Kilometers
0 200 400 600
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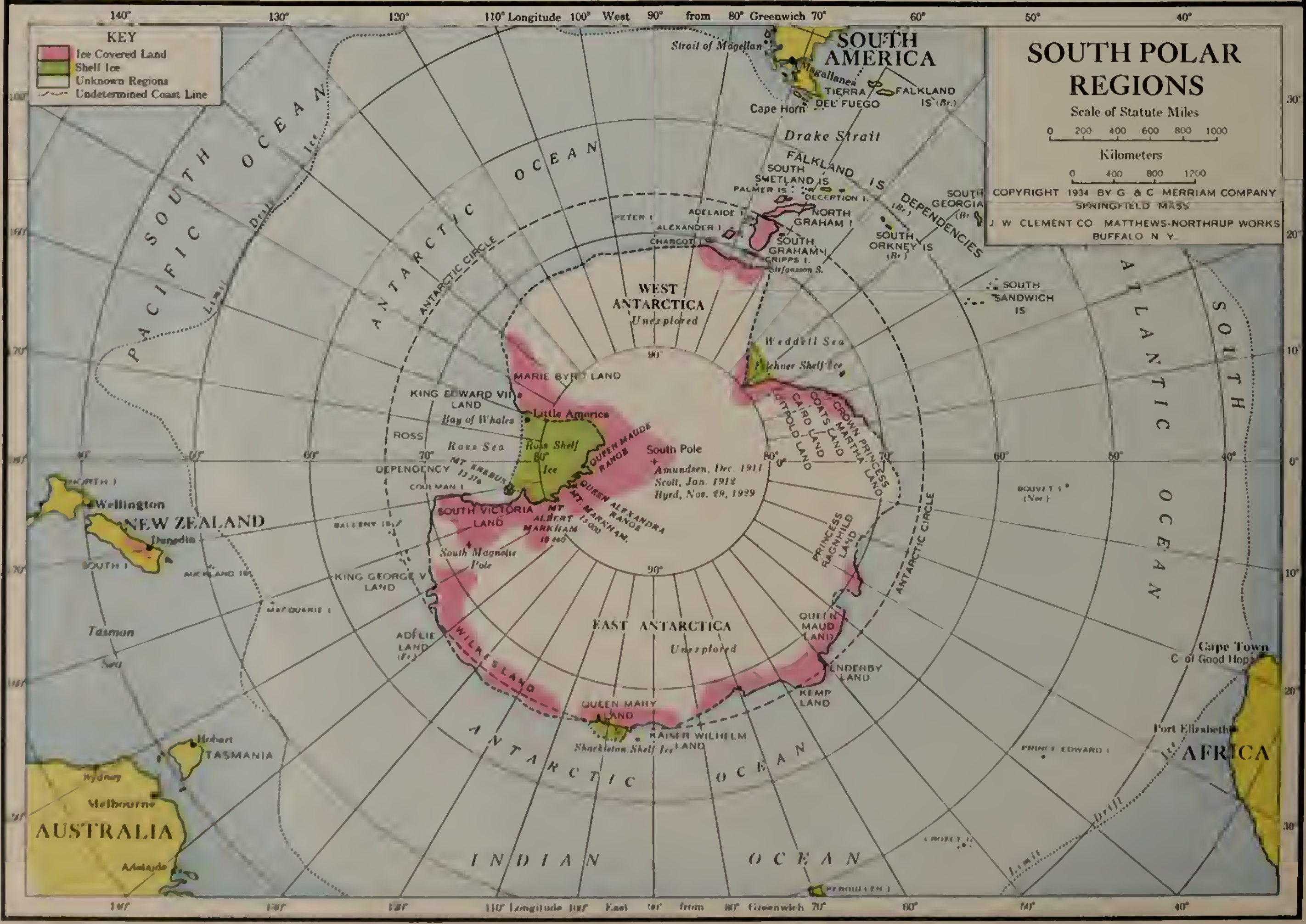
SPRINGFIELD, MASS.
J. W. CLEMENT CO., MATTHEWS-NORTHRUP WORKS
BUFFALO, N. Y.
110° Longitude 100° East 90° from 80° Greenwich 70°
110° Longitude 100° West 90° from 80° Greenwich 70°
ASIA
UNION OF SOVIET SOCIALIST REPUBLICS
ARCTIC CIRCLE
EUROPE
FINLAND
SWEDEN
NORWAY
G. of Bothnia
Leningrad
White Sea
Barents Sea
NOVAYA ZEMLYA
C. Chelyuskin
NORTHERN LAND
(NICHOLAS II LAND)
Laptevykh
(Nordenskjöld)
Sea
NEW SIBERIAN ISLANDS
FRANZ JOSEF LAND
(FRIDTJOF NANSEN LAND)
North Cape
Hammerfest
Tromsø
LOFOTEN IS.
BEAR I.
ARCTIC OCEAN
SVALBARD
(SPITSBERGEN)
DE LONG IS
WRANGEL I.
Unexplored
North Pole
Peary, Apr. 1909
Byrd, May, 1926
Amundsen-Ellsworth, May, 1926
McKinley Sea
JAN MAYEN I.
Dezhnev
Bering Strait
C. Lisburne
Nome
Pt. Barrow
ALASKA
Yukon
PEARY LAND
KING FREDERICK VIII LAND
KING WILLIAM LAND
Lincoln Sea
Scoresby Sound
Denmark Strait
ICELAND
Reykjavik
GRANT LAND
ELLESMERE ISLAND
GREENLAND
SVERDRUP IS
Etah
PRINCE PATRICK I.
PARRY IS.
MELVILLE I.
McClure Str.
BANKS I.
Melville Sound
DEVON I.
Lancaster Sd.
Baffin Bay
DISKO I.
Godhavn
Jacobshavn
Amundsen Gulf
VICTORIA ISLAND
PR. OF WALES I.
COCKBURN LAND
BAFFIN ISLAND
Davis Str.
Boothia Pen.
North Magnetic Pole
NORTH AMERICA
CANADA
Mackenzie R.
PACIFIC OCEAN


KEY
Ice Covered Land
Shelf Ice
Unknown Regions
Undetermined Coast Line
SOUTH POLAR REGIONS
Scale of Statute Miles
0 200 400 600 800 1000
Kilometers
0 400 800 1200
COPYRIGHT 1934 BY G. & C. MERRIAM COMPANY
SPRINGFIELD MASS
J. W. CLEMENT CO. MATTHEWS-NORTHRUP WORKS
BUFFALO N. Y.
110° Longitude 100° West 90° from 80° Greenwich 70°
110° Longitude 100° East 90° from 80° Greenwich 70°
Strait of Magellan
SOUTH AMERICA
Magallanes
TIERRA DEL FUEGO
FALKLAND IS. (Br.)
Cape Horn
Drake Strait
FALKLAND IS. DEPENDENCIES
SOUTH SHETLAND IS
PALMER IS
DECEPTION I.
SOUTH GEORGIA (Br.)
NORTH GRAHAM I.
SOUTH ORKNEY IS (Br.)
SOUTH GRAHAM I.
CRIPPS I.
Stefansson S.
PETER I.
ADELAIDE I.
ALEXANDER I.
CHARCOT I.
SOUTH SANDWICH IS
SOUTH PACIFIC OCEAN
Drift Ice Limit
ANTARCTIC OCEAN
ANTARCTIC CIRCLE
WEST ANTARCTICA
Unexplored
Weddell Sea
Filchner Shelf Ice
MARIE BYRD LAND
KING EDWARD VII LAND
Little America
Bay of Whales
ROSS DEPENDENCY
Ross Sea
Ross Shelf Ice
QUEEN MAUDE RANGE
MT. EREBUS
South Pole
Amundsen, Dec. 1911
Scott, Jan. 1912
Byrd, Nov. 29, 1929
QUEEN ALEXANDRA RANGE
MT. MARKHAM
COATS LAND
CAIRD LAND
LUITPOLD LAND
CROWN PRINCESS MARTHA LAND
SOUTH ATLANTIC OCEAN
BOUVET I. (Nor.)
NORTH I.
Wellington
NEW ZEALAND
Dunedin
SOUTH I.
COULMAN I.
SOUTH VICTORIA LAND
MT. ALBERT MARKHAM
BALLENY IS.
South Magnetic Pole
AUCKLAND IS.
KING GEORGE V LAND
MACQUARIE I.
PRINCESS RAGNHILD LAND
Tasman Sea
ADELIE LAND (Fr.)
EAST ANTARCTICA
Unexplored
QUEEN MAUD LAND
ENDERBY LAND
KEMP LAND
WILKES LAND
QUEEN MARY LAND
KAISER WILHELM LAND
Shackleton Shelf Ice
Cape Town
C. of Good Hope
Port Elizabeth
AFRICA
PRINCE EDWARD I.
Hobart
TASMANIA
Sydney
Melbourne
AUSTRALIA
Adelaide
INDIAN OCEAN
KERGUELEN I.

1835. Main **settlement of Victoria** begun at Melbourne and Geelong by Fawkner and Batman. In 1834 settlement by Henty at Portland Bay.

1836. *July 27.* **Settlement of South Australia** begins at Kangaroo Island.

1837. **Adelaide** founded.

1840. **Transportation** of convicts **to New South Wales ceases;** Van Diemen's Land becomes the chief colony for convicts.

1842. Discovery of copper in South Australia.

June 22. Crown Land Sales Act; uniform system throughout Australia; survey before sale; auction; minimum price of £1 (about $5) per acre. Cause of much complaint; repealed, except as to Western Australia, when responsible government is conferred in 1850.

July 30. Act for **representative government in New South Wales;** 24 of 36 councilors to be elected; general legislative powers.

1846. *Aug. 28.* Act to do away with evils of **squatting** for pasturage; pastoral leases to be granted with first right of purchase.

1849. **Demonstrations** in Sydney and Melbourne **against** the renewal, under order in council of 1848, of **transportation of convicts.** Ministry yields; but a stream of convicts and ticket-of-leave men is directed to Western Australia, along with a home subsidy, and that colony prospers.

1850. *Aug. 5.* **Representative government** — elected council — is extended to South Australia, Van Diemen's Land, and **Victoria,** the last being set off from New South Wales after July 1, 1851.

1851. White population estimated at 430,596.

Feb. 12. **Discovery of gold** in New South Wales; government adopts system of license to dig alluvial gold and later demands royalty on rock gold, whether in public or private lands; such taxation causes much controversy; later, export duty on gold is substituted. Gold fields also found in Victoria. Rush of miners similar to that to California in 1849.

1853. **Transportation** of convicts **to Van Diemen's Land ceases;** event celebrated August 10, and colony renamed **Tasmania.**

1854. *November–December.* Revolt of miners in Ballarat District, Victoria; discontent over licenses. Eureka Stockade stormed by soldiers on December 3. **Expulsion of Chinese** miners.

1855. **First railway opened;** Sydney to Parramatta.

1856. **Responsible government** with bicameral parliaments and control over revenue and expenditures put in operation in New South Wales, Tasmania, and South Australia.

April 21. First Eight Hours Demonstration Day in Melbourne; an annual holiday since. Victoria becomes a leader in **labor reform,** both private and legal.

1858. **Torrens Act** on transfer of real property in South Australia. (See TORRENS SYSTEM, in *Dict.*)

1859. *Dec. 11.* Under letters patent **Queensland** becomes a separate colony with responsible government.

1861. *Nov. 27.* New South Wales places restriction and **tax on Chinese immigrants.** Victoria has a similar act. Early phase of **"White Australia"** movement; other colonies support policy.

1863. *July 6.* British act places Northern Territory under South Australia.

1865. System of Kanaka laborers begins for plantations of Queensland.

1868. British government, in answer to complaints of other colonies, **ceases to send convicts** to Western Australia.

1870. **Western Australia** is given a **legislative council,** partly elective.

Imperial military forces are withdrawn from Australia.

1871. Population, 1,924,770.

1881. Population, 2,253,617.

December. Further act in New South Wales against **Chinese Immigration;** limit on number arriving in each vessel; $50 head tax.

1883. Plan for a **Federal Council** of limited legislative power. Not a success, though sanctioned by British Parliament (Aug. 14, 1885). Council meets first in February, 1884, but New South Wales, South Australia, and New Zealand ignore it.

1885. **Gold discovered** in Western Australia.

April 4. Queensland takes possession of British New Guinea (Papua).

1886. *April 6.* British-German convention on spheres in Oceania. Under this arrangement British New Guinea is made a crown colony on Sept. 4, 1888, Queensland assisting in administration and support.

1888. New South Wales's **anti-Chinese act** is made more drastic; high head tax and number permitted on each ship reduced two thirds; no mining or naturalization.

Aug. 13. British Parliament passes **Australasian Naval Defense Act,** carrying out agreement of colonies to pay interest on prime cost and also peace maintenance of 7 warships stationed in the region. Later renewed and enlarged.

1890. **Great strike** involving shearers, dock workers, seamen, miners, and others. Shearers strike again in 1891 to enforce union labor, but fail.

February. Conference of New Zealand and New South Wales delegates with Federal Council to consider federalization.

July 25. British act for **responsible government in Western Australia,** embodying a reserved colonial act of April 29, 1889.

1891. Population, 3,174,253.

March. **National Convention** at Sydney drafts a constitution for a Commonwealth of Australia with delegated powers; largely a basis for discussion.

1894. South Australia adopts **woman suffrage.**

1898. *March 16.* Convention of delegates authorized by the colonies of Australia (except Queensland) after prolonged discussion adopts a **Commonwealth Bill.** In June it is approved by referendum in Victoria, South Australia, and Tasmania only.

1899. **Woman suffrage** in Western Australia.

January. Conference of premiers at Melbourne and compromise reached on question of federal capital and division of customs revenue (**"Braddon clause"**); thus amended, the Federation Bill is adopted by referendum in all the Australian colonies but Western Australia.

1900. *July 9.* Adoption by British Parliament of the **Commonwealth of Australia** Constitution Act, being the Federation Bill with some modification of right of appeal to privy council. Members are called states, upper house modeled on United States Senate, federal powers enumerated; a Supreme Court to pass on constitutionality of statutes — no appeal to England except by consent of courts. Western Australia ratifies the federation on July 31, but New Zealand remains outside.

1900–1902. Australia sends about 21,000 soldiers to **South African War;** she also has a naval contingent in the suppression of the Boxer rebellion in China.

1901. Population, 3,771,715.

Act of New South Wales for **conciliation** and compulsory **arbitration of labor disputes,** modeled on New Zealand act. Later, Western Australia and South Australia adopt such measures. Systems of wage boards also authorized.

Jan. 1. Earl of **Hopetoun** inaugurated at Sydney **governor-general** of Commonwealth of Australia; **Barton ministry** is formed.

May 9. **First parliament of Commonwealth** opened at Melbourne by Duke of Cornwall (Prince of Wales, later George V). At first the ministry has 42 seats in House and 14 in Senate; the opposition, 32 in House and 21 in Senate.

1902. **Woman suffrage** adopted in New South Wales.

January. Woman suffrage adopted for federal elections.

Immigration Restriction Act; a "White Australia" measure also demanded by Laborites. Immigrants must be able to write 50 dictated words in prescribed European language: a test to cover intended exclusion of Asiaties.

Pacific Islands Laborers Act; directed against the Kanakas on the Queensland sugar plantations and the methods of labor traffic. All such laborers to be deported within a specified time. In 1903 a bounty enacted for sugar grown by white labor.

1903. *Jan. 9.* Lord **Tennyson** made **governor-general,** having been acting as such since July 17, 1902.

Sept. 24. **Deakin** succeeds Barton as **prime minister.**

1904. *Jan. 21.* Lord **Northcote governor-general.**

March 2. Second parliament assembles; in House 27 support the ministry, 24 are in opposition, and 24 are Laborites; in Senate 15 Laborites, 12 in opposition, and 7 supporters of ministry.

April 27. **Watson** (Labor) **ministry** takes over the government on Deakin's resignation over the Arbitration Act.

Aug. 17. **Reid-McLean ministry,** the Laborites having met defeat on the Arbitration Act.

Dec. 8. Commonwealth **Conciliation and Arbitration Act;** prohibits strikes and lockouts and authorizes a court of conciliation and compulsory arbitration in interstate controversies. Fails to prevent strikes.

1905. *July 5.* Second **Deakin ministry** begins.

Dec. 11. Trade-marks Act with a "Union-label" clause, which was later declared unconstitutional by the federal Supreme Court.

Dec. 18. Immigration Restriction Amendment Act removes word "European" because of diplomatic complications with India and Japan; but policy of exclusion through prescription of language test continues.

1906. *Sept. 1.* Papua (British New Guinea) becomes a territory of the Commonwealth.

Sept. 13. Australian Industries Preservation Act, directed against "dumping" and trusts.

October. Excise Tariff (Agricultural Machinery) Act, a "new protection" measure, lays an excise on such manufactures when not produced under specified labor conditions. Later declared unconstitutional.

Customs Tariff Act provides for reciprocal preferential duties with South Africa.

1907. **Bounties Act** for bounty during 15 years on production of certain goods.

1908. *May 29.* **Tariff Act** increasing protection and giving Great Britain 5 per cent preference on portion of items.

June 10. Federal **Old Age** and Invalid **Pension** Act; such measures already exist in New South Wales, Victoria, and Queensland.

Sept. 9. Earl of **Dudley governor-general.**

Nov. 13. **Fisher** (Labor) **ministry** succeeds, Laborites having withdrawn support from Deakin (Liberal) ministry.

Dec. 8. Act locating **federal capital** at Yass-Canberra, in New South Wales. On October 18, 1909, a formal agreement is reached to that effect between the Commonwealth and state, later ratified by the two parliaments, and the district of 900 square miles is transferred to Commonwealth control on January 1, 1911.

1909. *March 13.* **Royal Australian Navy** is begun in the construction of three destroyers. In August at imperial conference the Commonwealth agrees to provide and maintain a fleet unit.

June 2. Third **Deakin** (antilabor fusion) ministry begins.

1910. First high commissioner for Australia at London.

April 13. General election: House, 30 Ministerialists, 42 Laborites, 3 Independents; Senate, 13 Ministerialists, 23 Laborites. Two constitutional amendments voted on: one for assumption of whole of state debts adopted; other for substitute for expiring Braddon clause rejected, but government adopts its principle (annual payment to states of $6 per capita) for 10 years.

April 29. Second **Fisher** (Labor) **ministry.**

November. **Defense Act;** besides the permanent and instructional forces, general compulsory training in graded stages between 12 and 26 years of age.

1911. Population, 4,455,005.

Compulsory preferential voting adopted in Victoria.

Jan. 1. Northern Territory passes to control of the Commonwealth.

April 26. Popular vote on two constitutional amendments; one giving Commonwealth control over all commerce and all industrial matters; the other, power to take over and operate any industry deemed subject of a monopoly; both defeated.

July 31. Lord **Denman governor-general.**

Oct. 25. Launching of the *Australia,* the battle cruiser of the new Australian fleet unit.

1912. *Sept. 14.* Work begun on federal transcontinental railway to connect Western Australia with rest of country.

Oct. 19. Commonwealth **Maternity Bonus Act;** $24 grant at birth of each child.

1913. *March 12.* Formal naming of federal capital as Canberra.

May. General election: House, Liberals 38, Laborites 37; Senate, Liberals 7, Laborites 29.

June 24. **Cook** (Liberal) **ministry** succeeds.

Oct. 4. Arrival at Sydney of Australian navy; 1 battle cruiser (*Australia*), 3 cruisers, and 3 destroyers; 3 more destroyers and 3 submarines will complete the unit.

1914. *May 18.* Sir Ronald **Munro-Ferguson governor-general.**

August. All British possessions included in declaration of war on Germany and Austria. For the WORLD WAR, see that title.

Aug. 29. Capture of German Samoa by New Zealand troops and Australian navy.

Sept. 5. General election: House, 44 Laborites, 33 Liberals, 1 Independent; Senate, 32 Laborites, 4 Liberals.

Sept. 11. Australian navy occupies Bismarck Archipelago. Sept. 13, Solomon Islands taken.

Sept. 17. Third **Fisher** (Labor) **ministry;** members chosen by Labor caucus.

Sept. 24. German New Guinea is occupied. Australian vessels also visit other islands and the German wireless system in the South Seas is destroyed and raids by German cruisers prevented.

Oct. 17. First contingent of oversea troops, 20,343, sails.

Nov. 9. Destruction of German cruiser *Emden* by Australian cruiser *Sydney.*

1915. *January.* **New tariff** continues preference to the United Kingdom, New Zealand, and South Africa, but not to Canada.

Feb. 11. Policy of **food control** begins by taking over all meat for export; later, wheat also is controlled by government.

Oct. 27. **Hughes** succeeds Fisher as **prime minister,** and Labor ministry is reorganized.

1916. *August.* Hughes, advocating conscription, is expelled from Labor party.

Oct. 28. **First referendum on conscription:** for, 1,087,918; against, 1,146,198. Labor party is disrupted over issue; I. W. W.'s, Reds, pacifists, Sinn Feiners, and women oppose conscription.

Dec. 31. Australian voluntary relief contributions to date are about $25,000,000.

1917. *January.* Conference of state governments formulates plan for land settlement of Australian and British veterans.

N O P Q R S T U V W X Y Z

1917 *(continued)*.

Feb. 19. Hughes resigns, but at once organizes a coalition (Commonwealth-War) ministry.

May 5. General election: House, 53 Nationalists (Hughes), 22 Laborites; Senate, 24 Nationalists, 12 Laborites.

Oct. 20. First train on transcontinental line to Western Australia.

Dec. 20. **Second referendum on conscription:** for, 1,013,000; against, 1,178,000.

1918. Hughes again resigns because of conscription vote, but returns to power.

June 30. To date Great Britain has advanced $237,000,000 to Australia; and war expenses have been $1,074,000,000. Down to seventh loan, of October 15, 1918, about $945,000,000 thus raised. The chief addition to taxes has been a federal income tax; excess-profits tax is laid for one year only. **Total enlistments** to end of war, 415,685; sent overseas, 330,000; casualties: 57,871 killed, 150,241 wounded, 4,264 prisoners.

1919. *Jan. 18.* Australia is represented at Peace Conference by Premier Hughes and Ex-Premier Cook.

May 6. **Mandate for former German interests** in the Pacific south of the equator (except Samoa and Nauru) is given to Australia. New Guinea is the chief of the possessions.

Oct. 2. **Treaty of Versailles is ratified.**

December. At the elections, the supporters of the government get 49 seats in the House, to 10 for the Laborites.

1920. *January.* A permanent commissioner is sent to the United States.

Feb. 26. **New parliament meets** in which the Nationalists under Premier Hughes have 39 seats, the Labor party, 26, the Country party, which is the anti-Labor, 10.

1921. *Jan. 12.* Justice Higgins grants the claims of **Australian Timber Workers' Union** for a 44-hour week.

March 13. Mrs. Cowan defeats the attorney-general for a seat in Parliament. She is the **first woman to be elected a member of the Australian Parliament.**

May 8. The Government establishes a civil administration for the colony of New Guinea, awarded to her as a mandate.

1922. *Sept. 19.* The Federal cabinet supports Premier Hughes in offering Australian **troops** to Great Britain **for defense of Gallipoli** peninsula.

1923. *Feb. 2.* William M. Hughes, who has been **prime minister** of Australia since 1915, **resigns.**

Feb. 8. **S. M. Bruce** succeeds in forming a Nationalist-Country **cabinet** which includes members from the two anti-Labor parties.

1924. *April 19.* The **Labor ministry of Western Australia** is organized with P. Cottier as Premier, Treasurer, and Minister of Forests.

July 21. **A Labor cabinet is formed in Victoria** with C. M. Prendergast as Premier and Treasurer.

1925. *April 28.* In consequence of Great Britain's return to the gold standard, Australia re-establishes the gold basis.

Nov. 16. The **Government of Premier Stanley Bruce is returned** in the Federal general elections with a majority in both houses. The victory is interpreted as a rebuke to extremism in the Labor party.

1926. *Aug. 17.* The Commonwealth Government offers to take over all territory of Western Australia north of 26° S. lat. and to institute a form of crown colony.

Prime Minister Bruce secures the adoption by the Commonwealth Parliament of two bills giving **fuller constitutional authority to deal with industrial disputes.**

Nov. 22. Friction between the Labor cabinet of New South Wales and the Governor, because of dictatorial policy of the Premier, results in the defeat of the Labor government under Premier Lang by one vote.

1927. *Feb. 1.* Northern Territory divided into two territories, **North Australia and South Australia,** with 20° S. lat. as the boundary between.

May 9. **The Duke of York opens Parliament at Canberra, the new Federal capital.**

June 20. At a conference of the Australian State Premiers with Premier Stanley Baldwin, an agreement is reached by which the Federal Government will take over all debts, contribute £7,585,000 (about $47,925,000) toward interest on debts, and establish a sinking fund to repay existing debts in 58 years and new loans in 53 years.

1928. *Nov. 14.* The Labor government in the State of Victoria receives a vote of lack of confidence by the Legislative Assembly, and the Ministry resigns on November 21; replaced with a Nationalist government under Sir William McPherson.

Nov. 17. As a result of **general elections,** the coalition government of Prime Minister Stanley M. Bruce continues, but with a reduced majority.

1929. *Sept. 10.* The **Government** under Premier Stanley M. Bruce is **defeated on a labor arbitration bill** by a vote of 35 to 34, and on September 11 Parliament is dissolved.

Oct. 12. The **Labor party wins** 43 of the 76 seats, the Nationalists 17, Country party 11, Independent 4, Progressive 1, **in the general elections.**

Oct. 21. The Government under Stanley Bruce resigns, and on October 22 a new Cabinet is formed with J. H. **Scullin as Prime Minister.**

Dec. 11. The Nationalist cabinet of Victoria under Sir William McPherson resigns, and ex-Premier Edmond Hogan is requested to form a new ministry.

1930. *March 29.* The State of Victoria rejects modified prohibition by a substantial majority.

Aug. 21. A conference is held between representatives of Federal and State Governments in which it is decided to give three months' trial to a **program of financial rehabilitation,** reducing expenditures about £30,000,000 ($150,000,000), and arranging for the funding of £36,000,000 ($180,000,000) liabilities abroad.

Dec. 2. King George appoints **Sir Isaac Alfred Isaacs,** Chief Justice of Australia, as **Governor-General** of Australia.

1931. *April 28.* Premier Lang of **New South Wales repudiates the interest on the State indebtedness,** payable in New York and London. This obligation is assumed by the Commonwealth Government.

May 25. A conference of State Premiers is held at Melbourne which receives the report of the committee on economy.

June 10. **The conference of Commonwealth and State Premiers adjourns after ratifying the Melbourne Agreement** on measures of economy and financial rehabilitation which provide for reduction of state loans, increase in taxes, and a 20 per cent cut in Government expenditures and reductions in pensions, public wages, and salaries.

July 7. Premier Lang assents to the Melbourne Agreement.

Aug. 30. The Australian Labor party executive accepts the Melbourne Agreement.

Aug. 31. Nearly all the 6 per cent Treasury bills voluntarily converted to 4 per cents.

Nov. 25. The **Labor Government under Prime Minister J. H. Scullin falls.**

Dec. 19. The **Scullin** Labor Government is overwhelmingly **defeated in the general election.** Former Treasurer Joseph A. Lyons becomes Prime Minister on December 21.

1932. *March 16.* The **new giant Sydney Harbor Bridge is opened** with appropriate ceremonies.

April 20. A $11,310,000 unemployment relief plan is adopted by the Commonwealth Government, excluding only New South Wales because of its default in financial obligations.

April 26. The Commonwealth Government drafts new legislation to seize additional revenue from New South Wales to meet its recent overseas debt defaults. Premier Lang counters all such efforts by closing the tax offices.

May 13–16. **Premier Lang of New South Wales is dismissed from office** by Sir Philip Game, British Governor of the State. B. S. B. **Stevens,** Opposition leader, is **named Premier** and is sworn in on May 14. He reopens the tax offices and resumes payment of social services on which the Lang government had defaulted. A general election is set for June 11.

May 14. The Laborites are defeated in elections in the State of Victoria.

May 31. Former Premier Lang loses his appeal to the Privy Council which rules that his abolition of the Upper House in New South Wales was unconstitutional.

June 11. The **Labor party,** headed by former Premier J. T. Lang, is **defeated in the state elections** by the United Australia party, headed by Premier B. S. B. Stevens.

June 21. New South Wales abolishes its agent general in London.

1933. *March 27.* Prime Minister Joseph A. Lyons of West Australia opens a campaign against secession from the Commonwealth.

April 8. The **West Australia referendum** on secession from the Commonwealth **results** in a large **vote for separation.** The government is defeated in elections for the Legislative Assembly, the Labor party making great gains.

NEW ZEALAND

Historical Outline

The Dominion of New Zealand includes North Island, South Island, Stewart Island, and some dependent groups. In the interior, mountain ranges rise to considerable heights. Some among the mountains are still active volcanoes and there are glaciers and scenic hot springs. The climate is one of the best in the South Temperate zone.

Tasman discovered New Zealand in 1642, and anchored in a bay of South Island. Captain Cook in North Island in 1769 proclaimed the sovereignty of Great Britain. He introduced swine and European vegetables. Settlements were made by Englishmen, and American whaling ships visited the islands. Friendly relations were cultivated with the natives, the Maoris, who were a brave and vigorous race, physically of fine form and mentally well endowed. In 1820 Hongi Ika, the Maori king, visited England and was honored by George IV. Thirteen years later a British Resident was appointed, and in 1838, a lieutenant governor. The New Zealand Company was chartered in 1839. Beginning with 1844 there were a number of fierce wars with the Maoris, who were subdued with difficulty.

Constitutional government was established in 1852, the colony being divided into provinces, each governed by an elected superintendent and provincial council. This was succeeded by the parliamentary system in 1876. On September 26, 1907, the designation of the colony of New Zealand was changed to the Dominion of New Zealand. It has declined to enter the Australian Federation, the nearest part of which is 1,200 miles away.

The Dominion of New Zealand is noted for its extension of government services. This policy was largely due to Richard Seddon, who entered Parliament in 1879 and was a power until he died in 1906. During this period great headway was made in breaking up the large landed estates, although in 1930 there were still fifty-four estates each of over 50,000 acres. On the other hand, there were 70,000 holdings of from 1 to 640 acres, of which 38,000 were from 1 to 100 acres. A system of railroads was established by the government, and a scheme of compulsory arbitration for labor disputes was adopted in 1894.

The public debt of New Zealand is large for its population and resources, amounting to about $1,400,000,000, of which about $300,000,000 was incurred during the War. From 1930 to 1932 New Zealand has been unable to balance its budget, and in the last year (1932) had a deficit of over $10,000,000.

Organization

Government. The executive power is exercised by a governor-general, who may assent or refuse to assent to bills or reserve them for the English crown. He may summon, prorogue, and dissolve the Parliament and may return bills for amendment to either house. The legislative function is vested in the governor-general and a Parliament, which consists of a Legislative Council and a House of Representatives. The Legislative Council has 22 members. After former life appointments expire, all members will hold seats for seven years. The House of Representatives numbers 80 members, including four Maoris, and is elected for three years by universal suffrage. More than half of the population are enrolled as electors. Few countries have carried experiments in state socialism and governmental participation in the affairs of capital and labor as far.

Industry and Labor. New Zealand is rich in agricultural, grazing, and forest resources, and in 1931 exported wool, frozen meat, butter and cheese, hides, skins and pelts, and agricultural products. Its manufactures are also rapidly increasing, the most important being connected with preserving meat, making butter and cheese, grain mills, sawmills, and electricity supply works.

Religion and Education. No form of religion receives state aid. The leading church is the Church of England, with 41% of the population, after which come the Presbyterian and Roman Catholic. Education is thoroughly systematized and widespread. In 1931 there were 46 endowed secondary schools, with 16,000 pupils and 2,524 public primary schools with an enrollment of 223,105. 305 private schools care for 26,000 pupils. The University of New Zealand is an examining body with which are affiliated four colleges. There are also normal and technical schools, and 139 native schools with 7,499 pupils.

Defense. Military forces are under a general officer responsible to the Ministry of Defense. There are three military commands, the Northern, Central, and Southern. The strength of the Territorial Forces in 1932 was 1,020 officers and 6,613 in the ranks. New Zealand has 21 aerodromes, 256 licensed pilots and 64 aircraft. The navy consists of two cruisers, two sloops and several smaller vessels.

Area and Population. The area is 103,415 square miles (104,015 with outlying territory) and the total population in 1932 was 1,503,000 of whom about 67,000 were Maoris.

The following groups of islands in the Pacific are attached to New Zealand:

Auckland Islands, an uninhabited group about 200 miles south of Stewart Island. The largest has an area of about 200 square miles.

Chatham Islands, a group of 372 square miles area, 536 miles east of New Zealand. In 1926 it had a population of 562.

Kermadec Islands. This group is now uninhabited. It is 600 miles northeast of New Zealand and has an area of 13 square miles.

Cook Islands and other South Pacific Islands. These islands are widely separated in the south central Pacific and were annexed to New Zealand in 1901. The total area is about 280 square miles and the population in 1926 was 13,877. The more important islands are Rarotonga, Niue (Savage Island), Mangaia, Aitutaki, and Atiu. The first two have resident commissioners. The principal products are fruits and copra, with some coffee and pearl shell.

Chronology

1642. **Tasman** discovers New Zealand.

1769. **Cook** circumnavigates the islands. Irregular settlement by Europeans ensues; followed in 1814 by missionaries.

1833. Busby arrives as resident magistrate, assisted by British man-of-war, to prevent outrages; suzerainty not yet claimed.

1839. **New Zealand Company** organized (chartered February 12, 1841) to colonize region; receives government loans. Trouble over land purchases (individual and tribal ownership by Maoris). **New Zealand** is included in commission of governor of **New South Wales**; lieutenant governor appointed; trouble over dual control by government and the New Zealand Company.

1840. *Feb. 6.* **Treaty of Waitangi**; chiefs of North Island acknowledge British suzerainty, tribes guaranteed proprietary rights. Auckland founded as seat of government. Wellington has also been settled by Company.

Aug. 7. Act authorizes **separate crown colony**; carried out by letters patent on Nov. 16.

1841. New Zealand Company begins settlement of South Island at Nelson.

1845. First **Maori War**; caused by land question.

1846. Governor Grey forbids direct land purchases from natives; problem of squatters.

1848. New Zealand Company forces governor to purchase from the natives South Island, which, through act of Parliament, is practically at the Company's disposal.

1850. *July 4.* New Zealand Company surrenders charter.

1852. *June 30.* **Federal Constitution Act:** six elected provincial councils; general bicameral Parliament of appointed council and elected house with general legislative powers.

1854. *May.* Colonial Parliament first meets.

1856. **Responsible government** begins; but Maori control reserved to crown.

1858. White population, 59,413.

1860–1869. Second **Maori War,** caused by land question, but also due to military instinct of natives. Control over Maoris turned over to colonial government; also cost of defense.

1864. White population, 172,158.

1865. Wellington becomes capital.

1875. Provinces are abolished.

1878. White population, 414,412.

1886. White population, 578,482.

1887. New Zealand shares in subsidy of fleet for Australasian waters (see Australia). Amount and number of ships later increased.

1891. Graduated land tax designed to break up large estates.

1893. **Woman suffrage** (white and Maori) and compulsory voting. Latter repealed (1905).

1894. **Industrial Conciliation and Arbitration Act:** compulsory arbitration, model for such measures elsewhere. **New Zealand leads** in other **labor reforms** and experiments.

1896. White population, 703,360.

1898. **Old Age Pensions** Act.

1906. White population, 888,578.

1908. Second Ballot Act; requires second vote between highest two candidates, if no majority.

1909. *July.* **Defense Act;** compulsory military training between 12 (later 14) and 25 years of age.

1912. *New Zealand,* a battle cruiser donated by colony to Imperial navy, is commissioned.

1913. Naval Defense Act; fleet with voluntary force and reserve to be organized.

1914. *Aug. 29.* New Zealand troops occupy German Samoa.

Oct. 16. First oversea force sails.

1916. White population, 1,099,449.

Aug. 1. **Compulsory Military Service Act,** 20–46 years of age; Labor opposition.

1918. *March 31.* **War expenditures** to date, \$250,000,000; met by loans of \$230,000,000, increase of tax on incomes, lands, customs, and beer, excess-profits tax for one year, stamp duties, increase in railroad rates, postage, and telegrams, tax on amusements.

Aug. 15. Men mobilized to date: 114,410; sent overseas, 100,000; casualties: 13,457 killed, 33,961 wounded, 347 prisoners.

1919. *Jan. 18.* New Zealand is represented at Peace Conference by Premier Massey.

April 11. **Prohibition is defeated** through the vote of the soldiers in the field.

May 6 **Mandate over German Samoa** is given to New Zealand.

Sept. 2. **Treaty of Versailles** is ratified.

December. Prohibition is again defeated at the polls; plurality but no majority for it.

1921. *Feb. 24.* **New Zealand** continues its policy of **exclusion of Chinese** immigrants.

1922. *Dec. 7.* General election; Government supported, but with reduced majority. **Referendum for prohibition defeated.**

1923. *April 26.* W. F. Massey, Prime Minister of the Dominion, announces a surplus of more than £1,000,000 (\$5,000,000) for the last financial year.

Aug. 4. Official **opening** by Premier Massey **of Otira Tunnel,** longest (5⅓ miles) in British Empire, giving direct rail communication between east and west coasts of South Island, connecting Christchurch and Greymouth.

1924. *April 22.* The **Union of Railway Men strikes,** refusing the Government's proposal that a wage increase be granted provided the hours are lengthened.

1925. *May 14.* Sir Francis Bell, Attorney-General and Director of the Legislative Council, becomes premier following the **death of Premier W. F. Massey** on May 11.

May 27. The **Reform party,** which holds the majority of seats in the House of Representatives, **selects J. G. Coates for premier.**

July 24. The budget shows estimates of £29,600,000 (\$148,000,000) revenue and £29,024,000 (\$145,120,000) expenditure for the current fiscal year.

Nov. 4. In the **general elections** the Reform (Government) party under Premier Coates is returned with 55 seats, Labor 13, Nationalists 10, Independents 2. This represents a gain to the Government of 19 seats in the House.

The national referendum on prohibition shows a large majority in favor of continuing the existing system of licensing.

1927. *May 28.* The Government decides to send two delegates to the naval disarmament conference at Geneva.

Sept. 13. **New tariff proposals** to reduce the cost of living, to assist farming and manufacturing industries, and to encourage Empire trade are presented and on September 21 are passed by the House of Representatives by a vote of 51 to 10.

1928. *Feb. 18.* The Government sends two cruisers to Apia because of unrest among the natives of that part of Samoa governed by New Zealand under mandate from the League of Nations.

Dec. 10. The **first Cabinet of the United party** is **formed** by the new **Premier,** Sir **Joseph Ward.**

1929. *June 17.* A severe earthquake causes serious damage in the northern part of South Island.

1930. *May 21.* **George William Forbes,** Minister of Lands and Agriculture, **becomes Prime Minister,** succeeding Sir Joseph Ward who resigned on account of ill health.

July 22. **New tariff legislation** increases tariff on American goods, and gives greater preference for British products.

1931. *Feb. 3.* **Severe earthquake** shocks cause serious damage and loss of life, especially **at Napier** and Hastings.

June 1. The Government abolishes the preference given to Canada on most products.

Dec. 2. The coalition government is returned with a large majority in the general election.

1932. *April 14–16.* **Unemployment riots** occur **in Auckland.**

Dec. 20. Parliament passes a finance bill authorizing the payment in sterling of interest on loans held in London.

MANDATED TERRITORIES

NEW GUINEA

This territory was occupied by Australian forces in 1914 and a mandate from the League of Nations was given to Australia in 1920. The island is rich in tropical fruits and minerals, but only the gold mines at Dulolo are worked. The area is 93,000 square miles; the white population is about 3,000; the counted native population 390,000.

WESTERN SAMOA

This territory was occupied by the British in 1914, and assigned to New Zealand under a mandate from the League of Nations. The chief products are copra, cacao, and bananas. There are five government schools and 36 schools conducted jointly by the government and missions. The largest islands are Savaii, with an area of 660 miles, and Upolu with an area of 335 miles. The population consists of about 4,000 Europeans and half-castes, and 42,000 native Samoans.

NAURU

This island was discovered in 1798 and annexed by the Germans in 1888, but was surrendered to the Australian forces in 1914 and held under a mandate to Great Britain, Australia, and New Zealand from the League of Nations. It lies twenty-six miles south of the equator and is an oval-shaped atoll about twelve miles in circumference. There are valuable phosphate deposits on the island. The population in 1932 was 141 Europeans, 1,400 Nauruans, 696 Chinese.

FIJI ISLANDS

The Fiji group comprises over 200 islands, eighty of which are inhabited, lying between 177° E. and 178° W. long., being thus at the antipodes of Greenwich. The principal islands are of coral and volcanic origin. The surface is mountainous; many of the peaks rise above 3,000 feet and a few of them above 4,000 feet. The climate is healthful.

Fiji was discovered by Tasman in 1643. Escaped convicts from Australia and fugitive sailors took the risk of settlement as early as 1804. During the first half of the century there was almost constant war against the natives.

Until recently the native Fijians were the best-known savages of Oceania. Cannibalism flourished to the middle of the nineteenth century. The people were organized into clans; the clans were affiliated in larger groups. The religion was a form of shamanism. The Fijians have yielded to foreign influence, and their religious usages and social customs have been altered.

The king or overchief of the island, Cakobau (*pron.* Thakombeau), was pressed by the government of the United States to atone for injuries to the American consul. In his distress the king, who had become a Christian but without improving his position, was induced to offer (in 1858) the sovereignty of the island to Great Britain. In 1874 the British government took possession, leaving the native king in nominal authority.

Fiji is a crown colony of the British Empire. The governor, who is appointed by the crown, is assisted by an executive council. The laws are enacted by the Legislative Council, consisting of 14 members. Christianity has been introduced by both Protestants and Catholics. Some progress has been made in public education. The instruction of native children is entrusted to Protestant and Catholic missionaries.

In industry, there are six sugar mills, one tea factory, 22 boat-building yards, and two rice mills. The important exports are sugar, copra, green fruit, rubber, and molasses. Other exports are maize, vanilla, and shells. The export trade is carried on almost entirely with Australia and New Zealand.

The **area** is 7,069 square miles; the **population** (1931) was 185,573, including 93,414 Fijians and 76,722 East Indians. There has been a gradual decrease of the native population since 1875.

OTHER ISLANDS IN THE PACIFIC

Hardly a habitable reef or atoll exists in the Pacific or the Indian Ocean, over which some European power does not now assert authority. A majority of the groups, scattered over the face of the Pacific, are under Great Britain. Space is lacking to mention all their names.

The most familiar of these islands are the group of **Tonga,** or **Friendly, Islands** and **Pitcairn Island.** Germany, Great Britain, and the United States had conflicting interests in the Tongas, but finally the other powers consented that a British protectorate be proclaimed in 1899. A native sovereign is on the throne, but a British commissioner conducts the administration. The inhabitants numbered about 29,000 in 1931. All are Christians and the great majority are adherents of the free church of Tonga. Much enterprise is shown, and exports and imports are rapidly increasing. The total area is about 385 square miles. The Tonga Islands were discovered by Tasman in 1643.

Pitcairn Island, 25 degrees south of the equator and at the extreme east of Polynesia, by its isolation attracted the nine mutineers of the *Bounty* in 1790. It was visited by no others until 1808, and then again in 1825. Its area is 2 square miles. The inhabitants in 1914 numbered 140, all descendants of the original English settlers. They are an orderly and industrious community.

BULGARIA

Historical Outline

Bulgaria has had a long and turbulent history. The Bulgars, a Ural-Altaic race, made their first historical appearance on the banks of the Volga in the latter part of the 7th century. A small body of Bulgarians descended on the Slavs south of the Danube, conquered them, mixed with them, took their language, and thus gave rise to a Bulgarian nation. In the 9th century Bulgaria reached a high point among the civilized powers of the earth, occupying an empire from the Black Sea to the Adriatic and from Thessaly to the Carpathians. That empire soon declined and was conquered by the Byzantine emperors.

In 1186 by a general insurrection the nation recovered its independence, and under Ivan II (1218–1241) gained control of Albania, Epirus, Macedonia, and Thrace. It was unable to repel the Turks, who early began to ravage the country. In 1366 the Bulgarian Czar, Ivan Shishman III, was compelled to abdicate and declare himself a vassal of the Sultan.

For five centuries (1366–1878) Bulgaria suffered under characteristic Turkish rule. Towns and villages were sacked and the peasants were massacred. Some of the inhabitants fled to the mountains, but many of the nobles embraced Mohammedanism and were liberally rewarded. The majority of the people, however, remained Christians and though subject to heavy taxes were contemptuously disregarded by the Turks.

At the beginning of the 19th century Bulgarian nationality had almost disappeared. Then books began to appear written in modern Bulgarian; in 1835 a Bulgarian school was established; and attempts were made to revive the national spirit. Various insurrections took place which were put down with frightful cruelty.

1913. *October.* **Concha revolts** and takes the port of Esmeraldas.

1915. *Feb. 25.* Concha captured; revolt collapses.

1916. *Aug. 31.* Baquerizo **Moreno** inaugurated as **president.**

1917. *Dec. 7.* Diplomatic intercourse with **Germany** severed.

1918. *July.* United States Sanitary Commission begins extinction of yellow fever at Guayaquil.

1919. *Jan. 18.* Ecuador has a delegate at the Peace Conference at Paris.

July 19. Final **agreement** on **Colombian boundary** signed.

1920. *Jan. 11.* Dr. José Luis **Tamayo,** Liberal, elected **president.**

1922. *Jan. 3.* New taxes for raising money for national defense.

1923. *May 17.* **A violent earthquake at Quito.**

Dec. 17. **Earthquake destroys city of Tulcán.**

1924. *June 21.* **A protocol between Peru and Ecuador** regarding their century long frontier dispute is signed and is registered with the League of Nations.

Sept. 10. A **revolutionary movement,** headed by Dr. Rafael Florencio Arizaga, put down by the Government, September 13.

1925. *July 9.* **A bloodless revolution** headed by General Gómez de la Torre **overthrows the Government.**

Aug. 29. The United States refuses to extend *de jure* recognition to the revolutionary government.

1926. *Jan. 13.* **The military government is abandoned, and a new civil cabinet formed.**

March 10. Discovery of **buried city** in Carchi province.

May 6. The **military junta is dissolved;** affairs of the country returned to civilians.

1927. *November.* **Decree forbidding all foreign churchmen to enter the country.**

1928. *Aug. 15.* State Department at Washington extends *de jure* recognition to the Government.

Oct. 10. The **new Constitutional Assembly,** elected August 30, **renames Dr. Isidro Ayora, Provisional President** since 1926.

1929. *March 27.* The National Constituent Assembly elects Isidro Ayora **president.**

Nov. 22. President proposes a cut of 1,000,000 sucres (about $486,000) in the military budget.

1930. *Sept. 29.* President Ayora presents his resignation; rejected by Congress.

1931. *Aug. 24.* **President Ayora resigns.** Colonel Alba as vice-president, succeeds him.

Nov. 26. Committee of Congress clears former President Ayora of charges of misuse of government funds.

1932. *Feb. 9.* **The gold standard is abandoned.**

March 5. Central Bank refuses a loan to the government, which withdraws deposits.

April 7. The two-ship **navy mutinies** and rebel outbreaks occur on land.

April 11. The **revolt is subdued by Government forces.**

Aug. 20. By a vote of Congress, President-elect Bonifaz is declared ineligible to hold the office.

Aug. 27–Sept. 2. The Government of Provisional President Moreno is overthrown by rival supporters. The rebellion is put down. Alberto Guerrero **Martínez** is installed as **provisional president.**

Nov. 1. The liberal candidate, Juan de Dios Martínez **Mera, is elected president.**

1933. *Aug. 24.* Congress adopts a resolution guaranteeing full freedom to Socialists and Communists.

Sept. 25. Ecuador has requested Brazil, Colombia, and Peru to admit Ecuador in the Peruvian-Colombian conference on frontier questions on the Amazon.

Oct. 18. The Senate votes to impeach President Juan de Dios Martínez Mera.

EGYPT

Historical Outline

Egypt after an existence as a monarchy for centuries was conquered by the Romans in 46 A.D., and its national existence ended with the establishment of the Arabian dominion in 641 A.D. For the next six centuries the country was one of the caliphates of Islam. In 1250, Egypt was conquered by the Mamelukes, originally Tatars and Turks, who, from being a race of slaves, rose by insurrection to become the dominant rulers of the country. This line of sovereigns continued until 1382, when a new line, the Circassian Mamelukes took their place. In 1517 the Sultan Selim I invaded and subdued Egypt.

In 1798 Napoleon Bonaparte invaded Egypt and almost destroyed the Mamelukes in the battle of the Pyramids. Napoleon occupied Egypt as a station on the road to Asia. After the unsuccessful siege of Acre he was obliged to give way, and in 1801 the French army evacuated the country.

In 1805 Mehemet Ali, the first viceroy of the country, gained virtual independence. He affected European methods and became a powerful ruler. In 1830 he challenged the sultan to open war. In 1839 the Turks were defeated in the battle of Nizih. The Western powers obliged Mehemet Ali to resume his relation as a viceroy of the Ottoman Empire. The sultan, in 1848, appointed Ibrahim, son of Mehemet, as regent of Egypt. Thereafter, a succession of weak princes ruled Egypt till, in 1863, Ismail succeeded to the pashalic. In 1867 he was designated as khedive of Egypt.

Ismail tried to westernize his realm by lavish expenditure, subsidized the opera, and contracted large foreign debts. The completion of the Suez Canal in 1869 gave Ismail great prestige in European countries and enabled him to borrow enormous sums of money. In 1879 the reign broke down; he was expelled, and his son, Tewfik, was established in his stead. Tewfik was obliged to appeal to Western powers for aid. Not even the interest on the public debt could be paid.

Great Britain and France intervened, and from 1879 to 1883 Egyptian affairs were under the supervision of two controllers general, appointed by France and England. This situation led to an insurrection in 1882; Arabi Pasha, the minister of war, took the lead and raised a little army. England intervened and bombarded Alexandria, defeated Arabi Pasha, and restored Tewfik. In this intervention France took no part and as a result, in 1883, a single English financial adviser was appointed. France rather unwillingly acquiesced, but in the Anglo-French convention of 1904 acceded.

Under Ismail and Tewfik the authority of Egypt was pushed up the Nile. In that distant region appeared the Mahdi (see in the *Dictionary*), one of the fanatical prophets who from time to time became leaders in the Sudan. He all but annihilated an Egyptian army under English officers, and the rule of the British was shaken.

In 1884 General Charles George Gordon ("Chinese Gordon") was sent with a small British force into the Sudan. Left without support, he was cooped up in Khartoum on the upper Nile and on January 26, 1885, the town was stormed and Gordon was killed, just as a British relief force was nearing. The British abandoned the Sudan until 1898, when General Kitchener defeated the dervishes at Omdurman and reoccupied Khartoum.

In 1892 Abbas Hilmi Pasha succeeded his father, Tewfik, and showed considerable independence of British control. The British were obliged to recognize the desire of the Egyptians for a share in their own government.

In 1913 a legislative assembly of 89 members (only 66 elected) was set up. In the first year of the World War, the khedive was deposed and Egypt became substantially an imperial colony, though nominally Hussein Kamil was recognized as sultan of Egypt. He died in 1917 and was succeeded by Fuad I.

In 1914 Great Britain proclaimed a protectorate over Egypt with Hussein Kamil as Sultan. This protectorate was recognized by the United States and the British allies; and Egypt served as the base for the successful military expedition against Palestine. In 1917 Ahmed Fuad became Sultan and at the close of the war a strong Nationalist Party developed under the lead of Saad Zaghlul Pasha, which demanded independence. In 1922 Great Britain recognized the nominal independence of Egypt with Ahmed Fuad as King, but retained certain powers in matters of foreign policy and defense, as well as joint control of the Sudan.

The new government had frequent changes of ministry due to the Separatist party, which desired complete independence, and to the refusal of Great Britain to acknowledge the Sudan as a part of Egypt. The new constitution was finally signed April 19, 1923, and the first election, held January 15, 1924, resulted in an overwhelming Zaghlulist majority.

Zaghlul was unable to obtain from the Labor ministry in England any concessions with regard to Egyptian sovereignty in the Sudan, and anti-British feeling continued to show itself in attacks upon British officials, which culminated in the murder of Major General Lee Stack. In consequence the British authorities enforced their demands upon Egypt. Egypt was required to withdraw her troops from the Sudan, to pay an indemnity, and to enlarge the area irrigated by the Nile.

The elections of 1926 resulted in an overwhelming victory for the party of Zaghlul, but he refused to form a cabinet and was elected president of the Chamber. A cabinet was formed by Adly Yeghen Pasha with himself as Premier. Because of the impossibility of obtaining a cabinet which would agree to the demands of Great Britain, the King in 1928 suspended the activity of Parliament for three years.

A new treaty was negotiated in 1929 by which Great Britain agreed to end the military occupation of Egypt in return for a military zone for the protection of the Suez Canal. Egypt's independence is recognized, but an alliance is created between it and Great Britain.

In 1930 a new constitution was promulgated which provided for a senate of 100 members, 60 of whom are appointed by the King, and a second chamber elected indirectly by universal suffrage.

Organization

Production and Industry. Egypt includes one of the most fertile tracts in the world, producing three crops each year. The chief exports are textiles and yarns, cereals, colonial produce (cotton, cotton seed, sugar, beans, cigarettes, etc.), hides, tobacco, animals, and animal food products.

Education and Religion. In 1931–32, there were about 16,000 schools under the inspection and aid of the Egyptian government, at which there were nearly 158,000 pupils. There is a university, technical, agricultural and industrial schools. Nine tenths of the population are Moslems and seven per cent Christian, including Copts, who are the lineal descendants of the ancient Egyptians.

Defense. The organization of the Egyptian army is in the hands of a British general with the title of sirdar. Service is compulsory, but only four per cent of the men liable are called upon. The total strength of the army was (1919) about 17,000. Before 1914, Great Britain kept an army of occupation of about 6,000.

For area and population, see page 304.

Chronology of Modern Egypt

1517. **Ottoman conquest** ends rule of Mamelukes. A pasha is nominal ruler; much trouble with the army, and in the eighteenth century with the Mameluke **beys.**

1769. **Ali Bey** declares Egypt independent. He **gains control of Arabia and Syria,** but is betrayed by his general (1772) and nominal Turkish rule is resumed.

1798. **Bonaparte** defeats the Mamelukes at the **battle of the Pyramids,** July 21, and **occupies Lower Egypt,** the "road to India"; but defeat of French fleet at **battle of the Nile,** August 1, makes ultimate success impossible.

1799. Bonaparte's unsuccessful Syrian campaign is followed by his return to France without his army in October.

1801. Under compulsion of Turkish and British forces **French evacuate Egypt.**

1803. Rise of **Mehemet Ali,** head of Albanian troops in Egypt, who is made **pasha** (May, 1805).

1811. Mehemet Ali finally crushes the beys, and rules, practically independent, until 1847; economic progress and order, but severe repression.

1811–1819. War in Arabia; Wahabi rule finally overthrown by Ibrahim.

1831–1833. **Contest** between Mehemet Ali and Turkey **over Syria.**

1839–1841. Renewal of contest. **Powers** (France excluded) covenant, July 15, 1840, to **save Turkey.** Ibrahim, Mehemet Ali's son and general, driven out of Syria; but France saves Egypt for the pasha. Pashalic of Egypt is made hereditary in his family, February 13, 1841; later changed, May 27, 1866, to primogeniture.

1854. *Nov. 30.* Concession for the **Suez Canal** constructed by de Lesseps under arrangement with French government; **construction begins** April 25, 1859.

1867. Title of **khedive** conferred on the pasha.

1869. *Nov. 16.* Formal **opening of Suez Canal.**

1875. Ismail's extravagances compel him to sell his **canal stock,** which **Great Britain purchases. A dual control of the finances** by France and Great Britain, and international protection of foreign bondholders (*Caisse de la Dette*), are instituted.

1879. *June 26.* **Ismail is deposed** by Turkey at behest of France and Great Britain; **Tewfik succeeds.** Evelyn **Baring** (Lord Cromer) becomes English agent in the dual control.

1882. Antiforeign anti-Christian party under Arabi gains control; **massacre at Alexandria,** June 11. **British fleet bombards city,** July 11. **Great Britain** lands an army under Wolseley, and **suppresses the revolt** at the **battle of Tell el-Kebir,** September 13. Army continues in occupation. Arabi Pasha sent to Ceylon as a state prisoner.

1883. *Jan. 18.* **Dual control ends;** English financial adviser or agent (Baring) virtual power behind the throne. **Baring reorganizes the nation;** great economic and social improvements.

Nov. 5. Annihilation of army of Hicks Pasha in the **Sudan,** where there is a **revolt** under a religious fanatic who proclaims himself the **Mahdi.**

1884. British government orders Egypt to abandon the Sudan; **Gordon,** former governor-general of region, arrives at **Khartoum,** February 18, to plan evacuation. He is surrounded. British relief expedition under Wolseley too late to save **Gordon; Gordon killed** on January 26, 1885.

1885. Troops withdrawn from Sudan, May 11. Mahdi dies June 22. British public opinion much aroused over vacillation and delay of expedition.

1888. *Oct. 29.* **Suez Canal Convention** at Constantinople for neutralization of the waterway; April 8, 1904 free passage in peace and war is affirmed for vessels of all nations.

1892. *Jan. 8.* **Tewfik dies; Abbas Hilmi** succeeds.

1896–1898. Renewal of **Sudan campaign** by **Kitchener,** sirdar of Egyptian army. Occupies Berber (September 5, 1897); railway is constructed from Wadi Halfa across Nubian Desert. British

1930 (*continued*).
the Social Democrats holding 66 seats, the Agrarians 59, the Coalition party 42, Progressives 11, and the Swede-Finn group 21.

1931. *Feb. 16.* **Premier Svinhufvud is elected president** by a vote of 151 to 149 for ex-President Stahlberg.

Dec. 29. The **referendum on the prohibition law** results in a decisive majority in favor of repeal.

1932. *Jan. 21.* A nonaggression pact is signed with Russia.

Feb. 28. Four thousand armed members of the Lapua (Fascists) concentrate thirty-five miles from Helsingfors but disperse March 6.

March 24. The Minister of the Interior bans all activity by the Lapua.

April 5. **Prohibition officially ends** as government liquor shops open.

1933. *Feb. 1.* Measures providing for compulsory consolidation of farmers' debts, lower interest rates, and an extension of state mortgage loans are passed by Parliament to aid farmers.

July 8. It is announced that the general elections resulted in marked Left (radical) gains.

Oct. 3. The new Anglo-Finnish trade pact is published.

FRANCE

Historical Outline

France, at the middle of the seventeenth century, held the first rank among the powers of Europe. England remained an insular kingdom. Spain declined after the age of Charles V and Philip II. Germany was still a chaotic collection of kingdoms and principalities. For a time France alone in Europe was a consolidated unit of race and institutions, showing the spirit of nationality and employing the agencies and methods of a great modern state.

When Louis XIV was ten years of age France was represented at the Congress of Westphalia (1648) by Cardinal Mazarin. In 1661 Louis XIV began his personal autocratic rule, which lasted until 1715. He was called the "Grand Monarch," and his reign of 72 years was one of the most interesting in history. In the foreign and religious wars France obtained only minor advantages. The acquisition of Alsace was the really valuable gain to France from a historical point of view.

The age of Louis XIV was one of astonishing activity and glory, but of little substantial advantage to France. The manner of the king in administration and war resembled a royal parade and spectacle. Near the conclusion of the reign it was seen that the military power and prestige of the monarchy were waning. As for the literary splendor and artistic fame of the period, these cannot be claimed as results of the influence of royalty.

Louis XIV was proud and arrogant. He had great abilities when he chose to use them and an instinct for choosing subordinates. Thus Colbert, the banker statesman, was placed at the head of the Department of Finance, though a Huguenot. Turenne and Condé were chosen as commanders of the French armies. Louvois, Noailles, Villars, and Tallard came afterwards. On the other hand, Louis XIV made many serious mistakes in state policy, especially the revocation of the Edict of Nantes in 1685, the scheme for placing his grandson on the throne of Spain, and the correspondence with the English Jacobites. Battles were fought and some victories won by the king's armies, but the age was on the whole an era of proclamations and pageantry rather than of great deeds and marked progress.

The consequences to France of this false prosperity were quickly shown. During the first half of the eighteenth century, both the monarchy and the nation looked backward rather than forward. The English power in combination with the Netherlands gained at the expense of France. Louis XV, great-grandson of the Grand Monarch, came to the throne in 1715. So far from overriding the French people by the personal will of Louis XV, the government of France became weak and contemptible, while at the same time the French nation began to manifest its power and genius. All that is significant in the reign of Louis XV was a flowering of the French mind and its brilliant ascendancy in Europe. While the state was inert, French literary men, philosophers, and statesmen assailed the political, social, and religious structure of the age. A new learning came, a new science, and a new philosophy. Free thought clashed with despotism. The customs and traditions of a thousand years were set at naught. New opinions sought expression in literature. The Encyclopedists aroused the nation to a new system of learning, a new category of the achievements of mankind. By the middle of the century, the French lost their colonial empire in India and in North America. While the country was the most intelligent and the richest in Europe, the government was on the verge of bankruptcy.

Louis XVI came to the throne on the death of his grandfather in 1774. Neither he nor the French aristocracy saw that a new era was about to begin. For thirteen years the old methods of government and society were accepted as though they were eternal. In reality they had been destroyed by the slow-moving forces of history. The French monarchical system could never recognize or accept this fact, and thus fell before the attack of modern ideas.

The French Revolution began as a struggle against political privilege; it quickly developed into a struggle for "*liberté, égalité, fraternité*" — personal freedom, legal equality, brotherhood. Feudal rights were destroyed. When the monarchy was put on a constitutional basis in 1791 there came an uprising from the depths — a republic was established, the king and queen were executed, gradually the rabble of Paris got control of the Convention and the management of the government. The result was the Reign of Terror (1794), which led to anarchy. The only way out was to form a Directory, a dictatorship of a group. Military support was necessary. In 1795 the young Napoleon protected the Convention against a Royalist uprising and presently became the victorious leader of the French armies, repelling invasion and spreading the ideas of the Revolution in conquered lands.

In 1803 Napoleon declared himself Emperor of the French. In a series of wars he defeated Austria, crushed Prussia, occupied Holland, destroyed Spain, threatened Russia, and confronted England. In 1809 Austria attempted to throw off the French yoke, but was defeated at Wagram; and in 1812 Napoleon declared war upon Russia, invaded it, and occupied Moscow in triumph. The Russians, however, destroyed the city and the French were forced to a disastrous and frightful defeat. In 1813 the German nations rallied and at the great battle of Leipzig the French were defeated and Napoleon retreated to the Rhine.

The allies invaded France's territory, entering Paris March 30, 1814, and Napoleon abdicated and was exiled to Elba. In March, 1815, Napoleon escaped, landed in France and began his wonderful "Hundred Days" of French revival. The alliance was renewed against him; on June 18 he was overwhelmingly defeated at Waterloo, and the empire was abolished for the second time. The House of Bourbon was restored, but without enthusiasm or hope on the part of the French people.

The reigns of Louis XVIII and his brother, Charles X, were but interludes between the past and the future. Then came the Revolution of 1830 and the substitution of the Orléans monarchy of Louis Philippe, modeled on the English system. The Citizen King was tolerated by the nation until the Revolution of 1848, when the short-lived Second Republic served as a stepping-stone for Louis Napoleon Bonaparte, on which he mounted to the Second Empire in 1851.

The temper of France showed itself to be imperial and the *coup d'état* of Napoleon III was ratified with enthusiasm. For 19 years he ruled France, partly by diplomacy and partly by military power. His court was the most glittering in Europe. After the Crimean War, the opening of the Suez Canal, and the International Exposition of 1867, his prestige was greater than that of any other ruler of his time.

From 1852 to 1860 this rule was autocratic and repressive; from 1860 to 1870 it was forced into a form which paid some attention to the rights of the people. Napoleon III as a statesman was an intensely modern man, interested in works of utility and improvement and humanity. Hospitals and asylums and relief agencies were founded, laborers were given the right to strike, banks were organized so that the farmers might improve their holdings, railways were built and canals begun. In the midst of this prosperity the court was openly and unblushingly corrupt. The Empire lost thousands of the troops and military credit in the futile effort to make Mexico a dependency.

The rise of Prussia, particularly after the successful wars with Denmark in 1864 and with Austria in 1866, seemed to the French to upset the balance of power. "Revenge for Sadowa" — the critical battle in the Austro-Prussian war — was the cry of the French press. This meant that France must increase in area and power to counterbalance the growth of Prussia. The diplomats and the press harbored the idea that ultimately a war must come between France and Prussia. Not so the people; but a pretext was found in 1870 in a controversy over the Spanish throne, skillfully aggravated by the Ems dispatch which Bismarck so edited as to arouse German popular opinion. The emperor took the bait. Ollivier, the French minister, announced that he accepted war "with a light heart." The empress declared that "this is my war."

A few days of actual war brought down this house of cards. The scandalous lack of preparation of the French was revealed when in contact with the efficiency of the Prussians. Fighting began August 2, 1870, and on September 1 at Sedan a whole French army of 120,000 men was destroyed or captured, including the surrender of Emperor Napoleon III. The empire at once collapsed and a republic was proclaimed. Fighting continued until February, 1871, and included the siege and final capitulation of Metz and of the capital city of Paris.

For this war Germany exacted from France the then unprecedented money indemnity of five billion francs (about $1,000,000,000) and tore away the two French provinces of Alsace and Lorraine, including the important military fortress of Metz. Alsace was German in origin and speech, but had been French for two centuries, and in 1870 was French in spirit and nationality. The possession of Lorraine by Germany gave control of rich coal and iron deposits as well as a point of departure for future invasion of France. To France the loss of these provinces was an affront and an injury which never could be forgotten and which, it was expected, would some day be redressed.

The Third French Republic was proclaimed September 4, 1870, and its first act was to renew the war. When victory proved impossible it had to bear the odium of the hard terms of the German peace. Even greater difficulties faced it. In Paris the anarchistic Commune in 1871 seized the city. Civil war was waged for six weeks, during which Paris suffered even more than during the German bombardment. The Republic regained the city and overthrew the Commune amid frightful bloodshed. Thousands of the Communists were deported.

Although the republican government of France was thus restored, it had no constitution. The sole power was in the hands of the National Assembly, which exercised all legislative and executive powers. It was also the only body capable of making a constitution. The Assembly was not in favor of a republic; and the old Bourbon line would have been restored but for the refusal of the titular heir to the throne to accept the tricolor flag. Bonapartists also hoped and plotted. In 1875 the constitution of the Third Republic was formed, which still left the way open for a monarchy. In 1879 the republic was accepted as permanent and Jules Grévy was elected president. This republic has lasted for over fifty years, and in spite of dangerous crises has proved acceptable to France and has fought through the World War.

The history and development of the republic may conveniently be grouped around six important movements: (1) church and state; (2) the army; (3) colonial empire; (4) civil control of the military; (5) socialism and labor; (6) relations with Germany.

In the long struggle between republicans and monarchists the Roman Catholic Church supported the monarchists, which caused Gambetta to exclaim, "Clericalism, that is our enemy." In 1880 the Jesuits were expelled from France and the new free and compulsory educational system, established 1881–1882, attempted to free the schools from clerical control. In the struggles over the Dreyfus case the Clerical party sided with the army, which caused the formation in the Chamber of Deputies of the coalition called the "bloc," composed of Radicals and Socialists, which attacked the church.

Under the leadership of Waldeck-Rousseau, laws were passed suppressing all religious orders except those authorized by the government, and no religious order was allowed to teach. In 1905 the Concordat, or national treaty with the Pope, dating from 1801, was abrogated and thenceforth church and state in France were separate. Legally organized "associations of worship" were given the privilege of occupying the church buildings. Bishops and priests were deprived of state aid; but, on the other hand, the church was left free from state interference in ecclesiastical affairs.

The army in that period has twice been the cause of political crises. From 1886 to 1889 General Boulanger, a high officer in the army, attempted by securing election to the Chamber from different constituencies to prove his popularity; and he watched the opportunity for a military *coup d'état.* He failed to raise the necessary following and ignominiously broke down.

The Dreyfus case, which lasted from 1894 to 1906, began in the conviction and degradation of an obscure artillery captain charged with selling important documents. Gradually evidence accumulated that the traitor was not Dreyfus at all, but a protégé of the chiefs of the army and perhaps a minister. Dreyfus was a Jew and the anti-Semites in France charged that his race associates were controlling the politicians and the army by their money. The monarchists joined in the hunt, eager to discredit the republic. The Clerical party was against Dreyfus. On the other side the *bloc* of radical republicans insisted that the army should be subordinate to civil authority, that clerical influence should be kept out of politics, and that the republic should be preserved. A series of investigations showed that Dreyfus was innocent, his enemies were held up to public scorn, and the attacks on the army were checked.

During the early years of the republic a distinct movement was made to carry trade-unionism over to socialism. During the eighties the socialists lost ground and disintegrated into groups. About 1900, however, the various socialist elements united and in the ministry of Waldeck-Rousseau an "independent socialist" received a portfolio. In 1905 a formal Socialist party was formed, on the platform of transforming the capitalistic organization of society into a collectivist or communistic organization, through the political organization of the working classes (proletariat). In the elections of 1910, 105 Socialist

deputies were elected. The election of 1919, the first after the World War, showed a reaction against the Socialists and Radicals and a corresponding gain by the Republicans of the Left and the Progressives.

From 1871 until 1892 France stood almost alone in Europe. The loss of Alsace-Lorraine was not serious in a territorial sense, but the policy of *revanche* was never abandoned. The French always hoped that the lost provinces might some day be restored. Nevertheless, France accepted the loss as an accomplished fact for the time being, and turned her energies to building up a colonial empire.

As far back as 1830 France had sent a fleet to threaten Algiers; war followed, and by 1847 France controlled the whole of Algeria. Under Napoleon III, the Senegal valley in Africa was annexed, and in Asia Cochin China was acquired (1862). During the Third Republic, Tunis was made a "protectorate" (1881), and the French possessions in West Africa were expanded until France controlled most of the western coast of Africa from the Mediterranean to the Congo. The region thus brought under French influence is nearly eight times as large as France and has a present population of over 14,000,000. In Asia the kingdom of Annam became a protectorate in 1883 and Tonkin was annexed in 1885. In 1896 Madagascar was declared a French colony.

The French long looked with desire toward Morocco, but Germany was a rival contestant for territory both in the interior of Africa and on the northern coast. In 1906 the emperor asserted the interest of Germany. This was contested by France and Great Britain, and by the Conference of Algeciras French primacy in Morocco was acknowledged. Again, in 1911, Germany sent the *Panther* to Agadir, an act which almost caused war. Once more Germany was forced to yield and to recognize the French interests; in return France ceded territories in the Cameroons and the French Congo.

These incidents showed that France had powerful friends in Europe; the long isolation was broken. The change goes back to 1892, when an alliance was made with Russia. Thenceforward the two powers were united, if need be, against the Triple Alliance of Germany, Austria, and Italy. France's position in Europe was made more secure. The rivalry with Great Britain continued and became serious in 1898 over conflicting colonial claims in Africa (the Fashoda incident). Neither party desired war, and the matter was settled by compromise.

In 1901 Edward VII became King of Great Britain and added his influence over the pro-French element in Parliament to bring about a military understanding between France and England — the *Entente Cordiale* of 1904. France recognized England's special interests in Egypt, and England the special interests of France in Morocco. The adjustment of colonial questions was the smaller part of the result. Without any formal public alliance, England became the firm friend of France; then settled old differences with the ally of France, Russia; and thus the germ of a rival *Triple Entente* was formed to offset the famous Triple Alliance.

The early years of the twentieth century saw Europe divided into two camps. Germany's universal military service compelled her neighbors to adopt the same policy in self-defense. In spite of proposals made at the Hague Conferences of 1899 and 1907 to disarm or to limit the military establishments, a contest in military preparedness went on. In this Germany set the pace and France perforce had to follow. There is no evidence that France had in her alliances and the increase of her armies any aggressive design; she aimed to protect herself. Nor is there evidence that France planned attacking Germany or her allies.

Nevertheless, when in 1914 Germany, asserting that she was surrounded by an "iron ring" of enemies, supported the Austrian demands on Serbia after the murder of the Austrian Crown Prince and thus opened the way to a war on Russia, France was deeply involved. She was bound to defend her ally against a two-power war; and she could readily see that Germany would seek her destruction. Hence on August 3, 1914, German troops being already in French territory, war was declared on Germany.

Germany recognized that France, well armed and close to German centers, was the most immediately dangerous opponent. Therefore, leaving the eastern frontier weakly defended, Germany struck through Belgium directly at France. By the end of August Germany had almost reached Paris; but by the battle of the Marne she was thrown back on lines which still included a large part of the industrial section of France, threatening the Channel and the capital.

During the war France suffered as almost no other country. She was deprived of valuable industrial resources, a large part of the male population was mobilized in the army, and industry was paralyzed.

In the early years of the war there were frequent changes of ministry; but just as in military affairs the war produced one supreme leader, Foch, so in political affairs, Clemenceau became the most powerful influence in France. With no thought of surrender, in spite of reverses and in the face of a defeatist party, Clemenceau maintained his steady course and upheld the policy of Foch.

At the close of the war France demanded compensation, not only for the "crime of 1870" and for the enormous military losses, but also for the damage wrought during the German occupation of part of France. The treaty restored Alsace-Lorraine to France, gave to her an undetermined sum by way of reparation, and in particular assigned the occupation of the valuable coal mines in the Saar region as a compensation for the devastation of the Lens and other French coal fields.

TWENTIETH-CENTURY PERIOD

France was in a desperate condition at the close of the war. Incalculable damage had been done her territory; there was a staggering load of debt; and the currency was inflated. Hatred of Germany and fear of future disaster dominated the minds of the people and popular demands were made on the French government for restoration, reparation, and security. These three desires explain much of the history of France since the war.

The democratic institutions of France withstood the shock of the war. During the ill-fated administration of Millerand an attempt was made to strengthen the executive power of the president; but this was abandoned when the election of 1924 brought Herriot and the parties of the Left to power. With the exception of the three years when Poincaré and the National Union ministry which was formed to stabilize the franc held power, the period was characterized by short-lived ministries, depending for their support on temporary coalitions of parties which divided on personal rather than upon fundamental political policies. An exception should be made of the Socialist party, which since the war, while refusing to take part in any ministry, has grudgingly supported the ministries of the Left and has pursued more or less consistently the aim of further socialization of the state, the limitation of armaments, and increased taxation of wealth. Little difference appears between the parties in the ultimate aims of foreign policy, although "the Left" (radicals) has been less unyieldingly hostile to Germany and somewhat more ready to co-operate with other nations.

In the period since the War foreign relations have affected public opinion, particularly as to relations with Germany. The demand for postwar restoration was partially satisfied through the cession of Alsace-Lorraine and the temporary occupation of the Saar region. The restoration of the territory devastated by the War was undertaken by the government at enormous cost, to be recovered from Germany, partly by payment in kind but ultimately by the payments made through the Reparations Commission. Security was sought through the ruthless disarmament of Germany under international commissions, the fortification of the frontier, and the formation of alliances which would threaten any hostile demonstration on the part of Germany.

In 1921 the Allies occupied certain German towns because of the failure of Germany to observe the treaty. In 1923, because of an alleged default in reparations, France and Belgium occupied the Ruhr region and part of the territory of the Rhineland for nearly a year. This military occupation brought no financial advantage; but because of the German policy of currency inflation, the German government resistance collapsed, and the reparations commission appointed committees to bring about the stabilization of Germany's financial system and to fix the payments for future reparations.

The system of reorganization, stabilization, and payments is popularly known as the Dawes Plan, because it was proposed by a commission headed by General Charles G. Dawes, an American financier. This plan, accepted by France, guaranteed sufficient income from the reparations account to make payments on France's foreign war debts and to cover expenses for reconstruction of the devastated region. This temporary settlement led to a less hostile feeling; and as a result of the conferences between the foreign ministers of France, Germany, and England (Briand, Stresemann, and Chamberlain), the Locarno Treaties were signed, by which Italy and England guaranteed the Franco-German frontier, and agreed to come to the aid of whichever state might be attacked by the other and might refuse to arbitrate the disputes. The Locarno agreement still further mitigated the hostility towards Germany; and, under the influence of Briand, the French withdrew from German territory.

The Dawes Plan, while temporarily settling the reparations question, was not considered final; hence, in 1929 the Young Plan, drawn up by a commission headed by Owen D. Young, fixed the total amount of reparation payments, which were continued until a moratorium suggested by President Hoover in 1931. The matter was finally settled at the Lausanne Conference in 1932 by which the total reparations payments were reduced to about one tenth of the original demands. This forced reduction was regarded by France as a breach of the Versailles Treaty and her ill-feeling towards Germany again became active. Dissatisfaction was further increased by the success of the National Socialists in Germany and their demands for equality of armaments, which France consistently resisted.

France also sought security through foreign alliances. Immediately after the war France came to the aid of Poland in the struggle with Russia, and made a Polish treaty which was strengthened by large loans for Polish armaments. France also was friendly towards the inception of the Little Entente — Rumania, Czechoslovakia, and Yugoslavia — and aided each of these states with loans and supported their contentions, particularly against any revision of the Treaty of Versailles. Thus France hoped to build on the eastern frontier of Germany a group of states bound to her and ready to resist any attempt on the part of Germany to disturb the conditions set up by the Treaty of Versailles.

To Yugoslavia France gave additional support and made an offensive and defensive alliance designed to prevent Italy's desire to gain control over the Adriatic. Towards Austria and Hungary, France showed an unyielding adherence to the terms of the postwar treaties. While co-operating with the League of Nations in the financial rehabilitation of these countries, France unyieldingly opposed Austria's proposed customs union with Germany and remained unwilling to co-operate with the other powers in the financial crises which overtook Austria and Hungary in 1930–31, unless she received political guarantees which would assure her control of their foreign policy.

With her former ally Italy, France experienced several diplomatic crises, especially after the establishment of Fascism and the active foreign policy of Mussolini (see ITALY). Italy's attempt to control the Adriatic at the expense of Yugoslavia, the ally of France, produced such tension that neither party, while agreeing in principle, has been willing to limit its naval armaments. Each state, because of its possessions in Africa and in the Mediterranean, has regarded with jealousy the supremacy of the other in that region.

The relations of France and Russia have varied from suggestions of open war as the ally of Poland and tacit support of the movements for a Czarist restoration, to eventual recognition of the Soviet regime. Trade agreements have been made, although the question of Russian bonds held by French investors and the property seized by the revolutionary government after the World War has not been settled. In 1933 France and Russia finally signed a nonaggression pact. Because of the mandate in Syria, France came to an agreement with the new nationalist regime established in Turkey, and adopted a policy not in harmony with that of her ally Great Britain.

The relations between France and Great Britain, while outwardly remaining harmonious, have been strained at times because of the divergent foreign policies of the two countries. The French policy to keep Germany weak was contrary to the British idea of economic recovery. Therefore Great Britain failed to support France in the occupation of the Ruhr, has consistently advocated the reduction of the reparations payments, and has advanced substantial amounts to Germany and Austria for financial rehabilitation. In the East, Great Britain and France have pursued divergent policies with regard to Turkey; in the West, Great Britain has been more friendly to Italy than has France; and in the disarmament conferences Great Britain has urged the limitation of land forces. At times French relations with Great Britain have been somewhat strained by the differences in the aims and policies of the governments; but the threat of German rearmament under Hitler in 1933 brought about a somewhat closer accord.

The attitude of France to the United States, while remaining officially friendly, has been critical. The French people felt that the refusal of the United States to ratify the treaty of Versailles was a betrayal of the implicit pledge of the American government. The long dispute over the settlement of the war debt was a constant source of irritation which culminated in a French default in 1932–33. The active participation of Americans on the Dawes Commission, Young Commission, the Bank of International Settlements, and the Lausanne Conference, all of which resulted in depriving France of what she considered her just financial recompense, increased this irritation. A perennial source of controversy was the industrial protection policies of both countries. While no open breach or serious diplomatic crisis has occurred, the spirit of friendliness has been strained.

In the League of Nations, France was the consistent exponent of the sanctity of treaties, particularly the postwar treaties, and supported the claims of the postwar states east of Germany. In 1930, foreign minister Briand put forth a rather grandiose and unsuccessful scheme for a United States of Europe, by which it was hoped to solve some of the more pressing and dangerous problems of tariffs and armaments. In the disarmament conferences, France consistently supported the idea of her own security and at times proposed an international army to protect the sanctity of treaties and enforce the decisions of the League. Ultimately France assented conditionally to the English proposal of the limitation of land armaments.

The most pressing domestic problem which France

ASIA
Scale of Statute Miles
Kilometers
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J. W. CLEMENT CO. MATTHEWS-NORTHRUP WORKS BUFFALO N. Y.
Longitude East
from Greenwich
ATLANTIC OCEAN
ARCTIC OCEAN
PACIFIC OCEAN
INDIAN OCEAN
MEDITERRANEAN SEA
UNION OF SOVIET SOCIALIST REPUBLICS
REPUBLIC OF CHINA
MONGOLIA
MANCHURIA (MANCHUKUO)
TANNU TUVA
SINKIANG
TIBET
THE HIMALAYAS
NEPAL
BHUTAN
INDIA
BALUCHISTAN
AFGHANISTAN
PERSIA
TURKEY
SYRIA
IRAQ (MESOPOTAMIA)
SAUDI ARABIA
OMAN
YEMEN
HADHRAMAUT
SIAM
FRENCH INDO-CHINA
BRITISH MALAYA
PHILIPPINE ISLANDS (United States)
KOREA (CHOSEN)
FORMOSA (TAIWAN)
HOKKAIDO
HONSHU
KYUSHU
SHIKOKU
KARAFUTO (Jap.)
SAKHALIN ISLAND
KURIL ISLANDS
KIRGHIZ STEPPE
ALTAI MOUNTAINS
URAL MOUNTAINS
THE GOBI (DESERT)
Kolymskie (Stanovoi) Mountains
Kamchatka Peninsula
Taimir Peninsula
C. Chelyuskin
East Siberian Sea
Bering Sea
Sea of Okhotsk
Sea of Japan
Yellow Sea
East China Sea
South China Sea
Bay of Bengal
Arabian Sea
Persian Gulf
Gulf of Aden
Red Sea
Black Sea
Caspian Sea
Lake Aral
Balkhash Lake
Lake Baikal
Barents Sea
Kara Sea
Baltic Sea
North Sea
Moscow (Moskva)
Leningrad
Tokyo
Yokohama
Peiping
Tientsin
Shanghai
Canton
Hong Kong
Calcutta
Bombay
Madras
Delhi
Tehran
Kabul
Baghdad
Constantinople (Istanbul)
Angora (Ankara)
Cairo
Alexandria
Mecca
Medina
Riyadh
Aden
Muscat
Karachi
Rangoon
Bangkok
Saigon
Hanoi
Manila
Singapore
Colombo
Urga (Ulan Bator Khoto)
Lhasa
Irkutsk
Tomsk
Omsk
Tashkent
Samarkand
Vladivostok
Harbin
Mukden
Seoul (Keijo)
Port Arthur
Dairen
LIBYA
EGYPT
ANGLO-EGYPTIAN SUDAN
ABYSSINIA (ETHIOPIA)
AFRICA
EUROPE
GERMANY
FRANCE
SWEDEN
FINLAND
POLAND
RUMANIA
TROPIC OF CANCER
EQUATOR
ARCTIC CIRCLE

SOUTH AMERICA
Scale of Statute Miles
0 200 400 600
Kilometers
0 200 400 600 800
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BUFFALO, N. Y.
Caribbean Sea
ATLANTIC OCEAN
PACIFIC OCEAN
EQUATOR
TROPIC OF CAPRICORN
VENEZUELA
COLOMBIA
ECUADOR
PERU
BOLIVIA
BRAZIL
PARAGUAY
ARGENTINA
URUGUAY
MATTO GROSSO PLATEAU
Scotia Sea
Drake Strait
Rio de Janeiro
Buenos Aires
Longitude West from Greenwich

AFRICA
Scale of Statute Miles
0 200 400 600 800
Kilometers
0 200 400 600 800 1000
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NORTH ATLANTIC OCEAN
SOUTH ATLANTIC OCEAN
INDIAN OCEAN
MEDITERRANEAN
UNION OF SOVIET SOCIALIST REPUBLICS
EUROPE
ASIA
TURKEY
PERSIA
SAUDI ARABIA
LIBYA (Ital.)
EGYPT
ALGERIA
MOROCCO
SAHARA
FRENCH WEST AFRICA
ANGLO-EGYPTIAN SUDAN
ABYSSINIA (ETHIOPIA)
FRENCH EQUATORIAL AFRICA
NIGERIA
BELGIAN CONGO
KENYA
TANGANYIKA TERRITORY
ANGOLA
NORTHERN RHODESIA
SOUTHERN RHODESIA
SOUTH-WEST AFRICA
BECHUANALAND
UNION OF SOUTH AFRICA
MADAGASCAR
EQUATOR
TROPIC OF CANCER
TROPIC OF CAPRICORN
Gulf of Guinea
Cape Town
Longitude East from Greenwich

1927 (*continued*).
as Reds protest against the execution of Sacco and Vanzetti in Massachusetts.

Sept. 21. The Soviet Government offers to settle the Czarist debts to France by 41 annual payments of $12,000,000 each, if France will extend $120,000,000 credit to the Soviets in the next six years.

Oct. 7. The **French government demands** the **recall** of Christian Rakovsky, **Soviet Minister** to Paris.

Nov. 6. France plans to retire the $70,000,000 worth of 8% bonds outstanding in the American market with money loaned by the Swedish Match Company, whose subsidiary, the International Match Company, sells $50,000,000 worth of 5% bonds in the American market. Subsequently the Match Company disastrously fails.

Nov. 11. A **treaty of peace** and an agreement to support each other if attacked, is **signed with Yugoslavia.**

1928. *Feb. 6.* After long negotiations with United States, during which **France** is willing to renounce all aggressive war in favor of arbitration, **and United States** to renounce all war, and proposing a general series of identical arbitration treaties, the two countries **sign an arbitration treaty** for arbitration with exception of domestic questions where interests of third parties are involved, the Monroe Doctrine, and the obligations of France under the Covenant of the League of Nations.

March 3. **An agreement with Spain over Tangier is signed.** The city of Tangier and the surrounding territory remain under a special international regime. Spanish interests are recognized by the appointment of a Spanish inspector general of the police. This agreement is approved by Great Britain.

April 14. Dieudonné Costes and Joseph Lebrix return from a flight around the world.

April 19. **The Cabinet approves the Briand draft of an antiwar treaty.** (See League of Nations, page 51.)

April 30. The **elections** of April 22 and April 29 **result in the return of about 460 supporters of Poincaré** (a gain of nearly 100).

Supported by returns of the general election, Premier Poincaré announces that France will pay the United States $11,250,000, and the British Treasury £8,000,000 (about $40,000,000).

June 23. The Chamber of Deputies ratifies the **stabilization of the franc at 25.52 to the dollar.**

July 5. The Tangier accord is signed by representatives of France, Spain, Italy, and Great Britain.

July 30. For Anglo-French naval accord and international negotiations, see League of Nations.

Aug. 27. The multilateral treaty for the renunciation of war (**Kellogg Antiwar Pact**) **is signed** by representatives of fifteen nations.

Nov. 14. Poincaré accepts Germany's proposal for a **committee of experts to suggest the total amount of reparations.**

1929. *March 1.* The **Chamber votes** 582 to 12 **for ratification of the Kellogg Antiwar Pact.**

March 19. **Marshal Ferdinand Foch,** commander of the Allied forces during the World War, **dies** in Paris at the age of seventy-seven.

July 21. The Chamber of Deputies authorizes the ratification of the debt agreement with the United States.

July 27. The **resignation of Premier Poincaré;** Aristide Briand shortly forms a new Cabinet.

Oct. 22. **Premier Briand and his Cabinet resign** when defeated on a motion to delay discussion of foreign debt issues.

Nov. 2. A new Cabinet is formed by André **Tardieu,** with Aristide Briand remaining as Foreign Minister.

Nov. 7. With the support of Foreign Minister Briand, Premier André Tardieu pledges a firm policy in foreign affairs.

Nov. 23. **Georges Clemenceau,** former Prime Minister and known as "the Tiger," **dies** in Paris at the age of eighty-eight.

Dec. 28. The **Chamber of Deputies approves** a program providing for the **expenditure** of 3,300,000,000 francs ($132,000,000) over a period of five years **for fortification of frontiers and for aviation.**

1930. *Jan. 27.* **Statistics for 1929 show an increase** of $193,962,880 **in imports and a decrease** of $52,080,000 **in exports,** with a favorable balance in invisible items such as tourist trade.

March 30. The **Chamber of Deputies ratifies the Young plan and the Hague agreements.**

April 5. The Senate ratifies the Hague protocol on the Young plan by a vote of 281 to 8.

June 30. The **last French troops leave the Rhineland.**

July 1. The national compulsory social insurance law becomes effective.

Sept. 1. William Randolph Hearst, American newspaper publisher, is expelled from France because of the exposure in 1928 of a secret Anglo-French cruiser agreement.

Sept. 2. Captain Dieudonné **Coste and** Maurice **Bellonte complete** the **first nonstop flight from Paris to New York,** making the trip of 4,100 miles in 37 hours and 18 minutes.

Sept. 18. The Cabinet approves a budget of 50,098,000,000 francs (about $2,003,000,000) for the fiscal year 1931–1932, estimating a decrease in expenditures of 300,000,000 francs (about $12,000,000) over the previous budget.

Oct. 15. France declines to participate in the international $125,000,000 credit to Germany.

Oct. 16. Statistics for the first eight months of 1930 show a decrease of 12% in exports and 10½% in imports over 1929, with a total decline of approximately 9,000,000,000 francs ($360,000,000).

Oct. 28. The European steel cartel is extended by compromise to the end of the year to prevent complete dissolution.

Dec. 4. The **Tardieu Ministry** is defeated by eight votes in the Senate, and is **forced to resign.**

Dec. 11. Senator Théodore Steeg is chosen premier and on December 12 forms a Cabinet.

1931. *Jan. 3.* **Marshal** Joseph Jacques Césaire **Joffre,** leader of French forces during the first stages of the World War, **dies** in Paris, at the age of seventy-eight.

Jan. 22. Defeated by ten votes on the wheat policy, a minor question, the Steeg Cabinet resigns.

Jan. 27. Pierre Laval, Independent Socialist, forms a new Cabinet.

Feb. 7. French capital will be used for part of the international loan to Germany.

March 5. **France ratifies the general arbitration treaty.**

March 31. French bankers arrange a $40,000,000 loan with Poland.

April 23. It is announced that France has loaned $50,000,000 to Czechoslovakia.

May 8. The French Minister of Finance announces that France has loaned Yugoslavia $42,000,000 to be used for the stabilization of the dinar and for public works.

May 13. **Paul Doumer is elected president** of France, defeating Briand and Marraud.

June 19. It is announced that the Bank of France grants $12,000,000 to Spain on short-term credit guaranteed by gold deposit in London.

June 22. **Armande Fallières,** president of France 1906–1913, **dies** at the age of ninety.

June–July. For negotiations over the German financial situation, see International Relations.

Nov. 27. The International Peace Societies' **disarmament mass meeting** with eight thousand in attendance, is **broken up by an organized demonstration** of Nationalists, Royalists, and Fascists in resentment against what is deemed to be interference with France's national policy.

1932. *Jan. 12–13.* The Laval Cabinet resigns but is reformed with Premier Laval taking the Ministry of Foreign Affairs in succession to Briand.

Jan. 19. In the statement of ministerial policy, Premier **Laval asserts that France cannot reduce her reparation claims without also reducing her obligations** and that security must precede disarmament. On January 22 the ministry is supported by a majority of fifty-one.

Feb. 16. The Laval Ministry is defeated in the Senate and resigns.

Feb. 23. After an unsuccessful attempt by Painlevé, a Cabinet is formed by André Tardieu and accepted by the Chamber of Deputies.

March 1. The budget for 1932 provides for an army of effectives of 626,000.

March 7. **Aristide Briand,** eleven times Prime Minister and for many years Foreign Secretary, **dies in Paris.**

May 6. **President** Paul **Doumer** is **shot and killed by an assassin** in Paris.

May 8. Complete returns in the French elections show that the Radical Socialists will have the largest representation in the Chamber 158, the Socialists 125.

May 10. Albert F. **Lebrun is elected president** of the French Republic.

June 1. A commercial agreement is signed with the United States on the most-favored-nation basis. This materially increases the quotas of United States imports.

June 3. Édouard Herriot forms a Cabinet chiefly from the Radical Socialist group and on June 7, receives an overwhelming vote of confidence, being supported by the Socialists.

June 16. The Bank of France withdraws the last of its gold from the United States.

July 12. The Chamber of Deputies passes the budget calling for a saving of $100,000,000.

July 18. Jean Jules **Jusserand,** for twenty-three years ambassador at Washington, **dies in Paris.**

Sept. 1. Great Britain and France will act in accord on the demand of reduction of armaments made by Germany on August 29.

Oct. 16. Elections for the Senate show a continued swing to the Left.

Oct. 28. In a speech in the Chamber of Deputies, Herriot proposes the abolition of professional armies, and reliance upon militia, a regional aid pact, compulsory arbitration, and control of all armaments by international authority.

Dec. 15. The **Chamber of Deputies refuses to authorize the December payment to the United States** and the Herriot ministry resigns.

Dec. 18. A new Cabinet is formed under Joseph Paul-Boncour.

Dec. 29. The Chamber of Deputies votes a loan of 350,000,000 francs to Austria.

1933. *Jan. 29.* The Paul-Boncour cabinet resigns.

Jan 31. A new Cabinet composed entirely of Radical Socialists is formed by Edouard Daladier.

Feb. 13. The Chamber of Deputies approves Premier Daladier's budget bill.

March 7. A $400,000,000 bond issue to cover past budget deficits is voted by the Chamber.

April 9. Former Premier Herriot accepts an invitation to discuss economic and financial questions with President Roosevelt.

May 18. A colonial trade conference is opened in Paris.

May 30. The Chamber supports the Cabinet in its approval of the four-power pact.

July 18. Numerous **American products** of the United States are **subjected to maximum duties.** Reduced Aug. 10, 16, as a result of the American protest.

Aug. 27. Premier Daladier announces that **France will guarantee** the political and economic **independence of Austria.**

Sept. 18. Representatives of Great Britain, France, and United States meet in Paris to discuss "the world's eight-year disarmament plan."

Sept. 21. Negotiations begin for a new trade treaty between France and Soviet Russia.

Oct. 8. Premier Edouard Daladier pledges a program to re-establish the financial stability of France and insure the safety of the franc.

Oct. 14. The Cabinet approves a bill to reduce wheat production by taxing unusual production.

Oct. 24. The cabinet is defeated by a vote of 329 to 241 on the budget, and Premier **Daladier resigns.**

Oct. 27. A new cabinet is formed with Albert **Sarraut as Premier.**

Nov. 22. A bill to remove the surtax on British and American imports is approved by the Foreign Affairs Committee of the Chamber.

Nov. 23. The **Sarraut** government is **defeated.**

Nov. 26. A new cabinet is formed with Camille **Chautemps as Premier;** includes majority of previous ministers.

Dec. 2. The Chautemps Cabinet receives a vote of confidence.

Dec. 20. Two Americans are arrested in Paris charged with espionage.

Dec. 23. It is announced that both imports and exports have greatly decreased during 1933.

Dec. 31. By government decree the import quotas are reduced by 75 %.

FRENCH MANDATES

SYRIA

Syria is the strip of territory extending from the frontiers of Egypt northward to the middle valley of the Euphrates, along the Mediterranean Sea, geographically including Palestine. As the natural highway between Asia and Africa it has been many times swept over by conquering armies, and has been part of the Mesopotamian, Greek, and Roman empires.

Syria has been for ages the point of contact between Eastern and Western commerce through its famous ancient ports at Tyre and Sidon; and their proximity to Antioch and Damascus. It was also a meeting point for the civilizations of Africa and Central Asia. For ages it was traveled by visitors to the " holy places " of the Christian faith; and the crusades involved the conquest of Syria. Syria passed into the hands of the Turks and in 1914 was still organized into vilayets of the Moslem Empire.

For more than a century France has shown a strong desire to acquire Syria. In the World War Syria, because of its nearness to the Suez Canal, became a battlefield between Turkish and British troops, who drew into alliance neighboring Arab tribesmen. The new king of Hejaz claimed Syria as a part of his country; but in 1920 France received from the Allies a "mandate" for Syria and her armies sought to pacify the land.

The condition of Syria under the French mandate was at first unhappy in the extreme. Arab opposition was constant, and the nationalist movement of the Druses in 1925 provoked a local war, Damascus being shelled by French forces several times. The French Commissioner, Henri de Jouvenel, was removed and a more conciliatory policy adopted.

The French mandate includes the Syrian Republic, which by the constitution of 1930 is governed by a president, and a legislature of 96 members, the Lebanese Republic, the government of Latakia, and the government of Djebel Druse. The total area of the French mandate is estimated at about

Historical Outline

Discovery of America. The first record of the discovery of the Western Continent is found in the Icelandic Sagas, handed down for centuries by oral tradition. In 874 a Norse colony was established in Iceland and in 985 Eric the Red discovered and then settled a barren land which he called Greenland, hoping that a pleasant name would attract settlers. The Sagas tell of a voyage made by **Leif Ericson** in the year 1000 beyond Greenland, where he discovered an unknown land on which grew "grapes" and "self-sown wheat," whence he called it **Vinland** and where he established a little trading post. No authentic remains of these explorations and occupations have been found, but there is no reason to doubt that **Norsemen landed on the Atlantic Coast of North America,** south of Labrador. Enthusiastic archaeologists think they have identified Vinland with the Massachusetts Bay region. There is also a tradition that two Venetian brothers, Zeno by name, made two voyages from the Orkneys just previous to 1400 and found new land in the West.

The actual practical discovery of America was due, however, not so much to chance voyages as to the economic, intellectual, and political condition of Europe at the end of the fifteenth century. The outlook of Europe was toward the East, toward India and far Asia, from which came products, such as spices, silks, and precious stones, greatly desired by Europe since ancient times, and since the Crusades in popular demand. A small supply of these products trickled into Europe through the overland caravan trade for ages, but by the fifteenth century Turkish conquest had all but closed the thoroughfare by sea or land. Constantinople fell into the hands of the Turks in 1453; and trade with the East was much impeded in that city and the other termini of trade routes in Asia Minor, in which European traders were established. **To find a new route for this commerce** was a compelling motive which brought about the **age of discovery.**

Another reason for penetrating the Western seas was **the revival of learning** in Europe, which stimulated men's thoughts and imagination. Keen minds roused by the Renaissance did not hesitate to question the mysteries of unknown seas, while the use of the compass and the invention of rude nautical instruments made voyages possible far off the coast.

A third influence was the improved condition of western Europe, which had emerged from the disorders of the Middle Ages and was organizing into strong national units. Conscious of themselves, these seafaring people were ready to seek new outlets and acquire new resources.

Portugal first initiated the search for a **sea route to India.** The sailors dispatched by Prince Henry the Navigator and his successors began a systematic exploration of the west coast of Africa, which resulted in the passing of the Cape of Good Hope in 1487 by Bartholomeu **Dias** and prepared the way for the first sea voyage from Europe to India by **Vasco da Gama** in 1497.

The **actual historic discovery of America** was made by **Christopher Columbus,** in 1492. Columbus, son of a Genoese wool carder, was born in 1446 or 1447 and after some slight education went to sea. As a result of his voyages, his reading, his study, and the tales of sailors, he became convinced that the world was round, and that the eastern coast of Asia was not far from the western coast of Europe. He was strengthened in his theory by the writings of the ancients and the teachings of the geographers of his time, but he alone of the sailors of his time was ready to put his theory to a test. He vainly sought support for his idea and backing for his voyage in Italy, in Portugal, and in England. Finally he persuaded **Ferdinand and Isabella,** the sovereigns of the recently united kingdoms of Castile and Aragon, to become his patrons.

He sailed from Palos, Spain, August 3, 1492, with a little fleet of three vessels, the largest of not more than 100 tons burden. In spite of the discontent of his crew, almost resulting in mutiny, he pushed on, and on October 12, 1492, landed on a small island which in pious gratitude he named **San Salvador.** He continued his voyage to the coasts of Cuba and Haiti, and on his return it was declared that he had found a **short route to the Indies.** Although he made three other voyages, reached the north coast of South America, and touched the borders of Nicaragua and Honduras, he died with no conception that he had opened up two unknown continents, but convinced that he had reached land and islands off the coast of Asia.

In 1497 **John Cabot,** a Venetian sailing under the authorization of Henry VII of England, reached the northern coast of North America, perhaps at Newfoundland. In 1498, with his son **Sebastian Cabot,** he made another voyage which may have traced the coast as far south as Carolina.

The name America was suggested by an Alsatian geographer, Hylacomylus, from **Amerigo Vespucci,** who claimed in 1497 to have discovered a large section of the western coast of South America and probably the coast of Central and North America. He described this and later voyages in lively style in accounts printed before the narrative of Columbus's later voyages. The name was gradually extended to all South America and thence by popular usage to the northern continent.

The coast of North America was slowly determined. In 1506 **Jean Denys,** of Honfleur, explored the **Gulf of St. Lawrence;** in 1512 **Ponce de León** discovered **Florida.** In 1513 **Balboa** crossed the **Isthmus of Darien** and discovered the **Pacific Ocean,** and in 1519, the fleet of **Magellan** started on a three years' voyage to South America, sailed through the Strait of Magellan, and across the Pacific Ocean. One of the vessels then rounded the Cape of Good Hope, and thus proved by experience that the earth is round, and that a vast ocean separated the newly discovered continents from Asia.

In 1524 **Verrazano** explored for France long stretches of the coast of what is now the United States. In 1535 **Jacques Cartier** sailed up the **St. Lawrence.** By this time it was established that the eastern coast was continuous from the Strait of Magellan to Labrador.

Now began an era of interior explorations. In 1540 **De Soto,** on an overland expedition, passed from Florida through the region now occupied by the Southern States, **crossed the Mississippi,** and penetrated as far north and west as Arkansas. In 1540 **Coronado,** setting out from Mexico, explored what is now New Mexico, went as far north as Oklahoma, and sent on an advance party which reached the center of Kansas. In 1579 **Sir Francis Drake,** the English mariner, coasted South America, and bore up northward as far as **California.** From 1603 to 1608 the French under the leadership of the indefatigable **Champlain** explored the **St. Lawrence,** founded **Quebec,** and determined the coast line of New England. In 1609 **Henry Hudson** made his way up the river which has since borne his name. Thus most of the coast line of the Americas was determined as far as 45° north latitude.

The First Colonies. The first settlements made by Europeans in North America were made **by the Spaniards,** and the oldest town within the limits of the United States which has had a continuous existence is **Saint Augustine,** Florida, founded in 1565. The Spaniards were attracted by the richer regions of Central and South America, in which they established a great colonial empire that enriched the home country with its precious metals. Another current of civilization was the **French in Canada. Champlain** and his successors established posts at **Quebec** and **Montreal,** on the St. Lawrence, and in **Acadia** at Port Royal. Venturesome explorers, priests, and traders reached the **Great Lakes,** pushed across the watershed, explored the **Mississippi** in 1682, and founded **Louisiana** in 1699, thus giving France good title not merely to the St. Lawrence region, but to the Great Lakes and the whole central plain between the Appalachians and the Rocky Mountains.

English Colonization. What proved to be the most significant colonizing movement came from England. In the reign of Queen Elizabeth there sprang up a national jealousy of Spain and a contest against the Spanish claim to exclusive rights in the New World. The Elizabethan seamen, chief of whom were **Hawkins, Drake,** and **Raleigh,** harried Spanish commerce in illegal and in open wars and roused the interest and enthusiasm of the English. In 1584 Raleigh sent out an expedition which explored a stretch of the Atlantic coast now called **Virginia** for the "Virgin Queen." In 1585 a settlement was maintained at Raleigh's cost on Roanoke Island for a year, and in 1587 a second Raleigh colony was founded, all trace of which has been lost.

The defeat of Spain's Invincible Armada in 1588 opened the way for the permanent settlement of Virginia. This was carried out not by gentlemen adventurers of the Elizabethan Age, but by a group of capitalists, headed by Sir Thomas Smythe. From the Queen they received a charter for the **Virginia Company,** which in 1607 planted the first permanent English settlement at **Jamestown.** The early life of the colony was beset with difficulties and dangers. The colony was almost starved out, but a profitable crop for export was discovered in **tobacco,** and slowly the little colony became self-sustaining, though never profitable to the founders.

In 1620 a little band of religious exiles, **the "Pilgrims,"** who had fled from England to Holland to escape persecution, planted a second English colonial nucleus at **Plymouth,** the first settlement in New England. Because of the endurance and persevering nature of these settlers, and the abundant natural resources of timber and fish, they were able firmly to establish an important colony.

English emigration to America on a large scale began in 1630, when a powerful company sent the "**Great Emigration**" to Massachusetts. These were **Puritans,** including men of wealth and substance, who settled first on the coast around Boston under a royal charter giving them practical self-government. **Other Puritan settlements** were made **in New England,** both from England directly and from colonies already established in Massachusetts, and these resulted in the colonies of Maine, Connecticut, New Haven, Rhode Island, and New Hampshire.

The southern colonies were increased by **Maryland** (1632) and later by the **Carolinas** (1663) with similar conditions, except that the Carolinas furnished "naval stores," rice, and indigo. **Slavery** flourished in them all, fed by a slave trade from the West Indies.

Between the northern and the southern group of colonies a middle group was slowly developed, after the Dutch were dispossessed (1664): **New York** on the basis of the former New Netherland; then East and West **New Jersey** (1665), afterward united; then in 1682 the magnificent colony of **Pennsylvania,** founded by William Penn, which soon became the most prosperous and richest of the colonies, with a population drawn from the Welsh, Scotch-Irish, Swedes, and Germans, as well as from the English.

Colonial Growth. In the main the economic foundation of all the colonies was agriculture. In the **South** tobacco, rice, and indigo could be raised on large plantations worked by Negro slaves. In the middle colonies, where the winters were more severe, slavery took root in a milder form. The rich soil of **Pennsylvania** and the sober, hardy, and industrious character of the settlers soon made that State the largest grain-producing colony. In **New England,** where the soil was less fertile, the fisheries provided food and an export of dried fish which developed a trade with the neighboring continental colonies, the West Indies, and even with Africa. An important trade was built up with the Indians, from whom were obtained furs and skins, especially beaver skins.

Although all the colonies on the Atlantic seaboard were either founded or conquered by the **English,** there was always a **non-English element** in the population. Huguenots and, later, Acadian French were found in New England, South Carolina, and elsewhere. In New York the **Dutch** were long the dominating element, and in Pennsylvania there were Swedes, Scotch-Irish, French, and a large German element, which also settled along the Mohawk Valley in New York. A few Spaniards were settled along the Gulf Coast. In all the colonies there was some negro population, which was largest in the South, and in South Carolina was more numerous than the white population. Although representing different races, nearly all the colonists were Protestants and held similar ideas concerning personal liberty and self-government. English political institutions and the English common law, with all its safeguards, were easily transferred to this western England.

Government of the Colonies. The colonies were classified according to their form of government into three groups: (1) The **royal colonies** or provinces had no charter and took the government framed for them by the English authorities. (2) The **proprietary colonies** were held by a charter granted to an individual or group and inherited by their families. The proprietor arranged the colonial government. (3) The **charter colonies** had a documentary grant to a stock company which, in the case of the New England colonies, was made up of the colonists themselves.

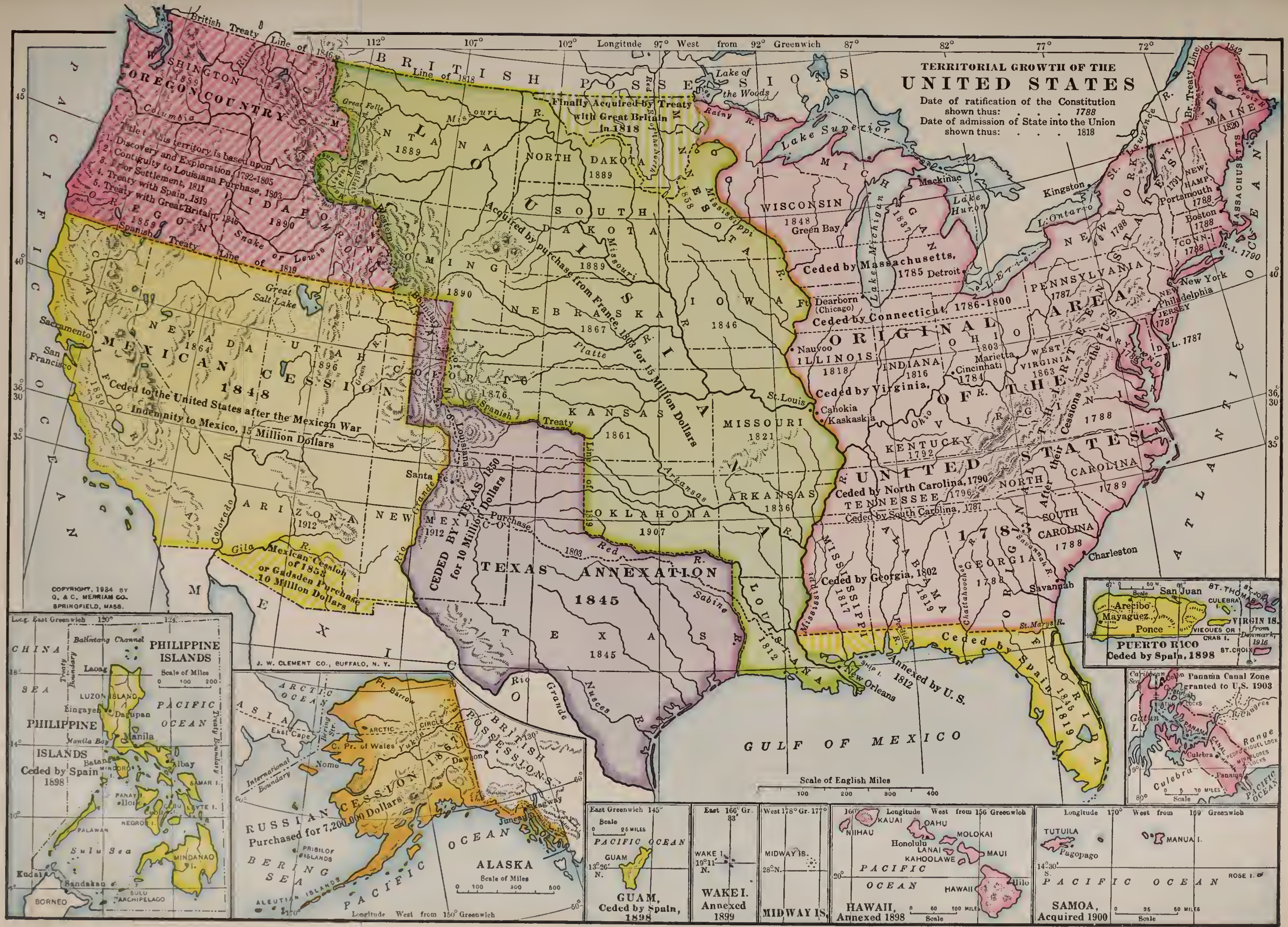
Notwithstanding these variations, all the colonies developed similar political institutions. In each there was a governor, appointed by the king in the royal colonies, by the proprietor in the proprietary colonies, and elected by the company in the chartered colonies. In each there was a legislature, consisting of a Council appointed in the royal and proprietary colonies and elected in the chartered colonies; and a lower house elected in all colonies by the freeholders. **Suffrage was nowhere universal;** property and tax qualifications and religious tests much reduced the number of voters.

These colonial legislatures claimed for themselves much the same powers in colonial affairs that Parliament exercised in the English system. This gave the colonists invaluable training in self-government, and they did not hesitate to brave their governors and even disputed with the English authorities. They stood by the English principle of the control of the legislatures over local taxes and appropriations. This power of the purse to a large extent made them makers of the policy of their government.

In local affairs there were three systems of government. In the South the **county system,** with a board of justices appointed by the governor. In New England the **township,** with the meeting of

UNITED STATES GOVERNMENT BUILDINGS AT WASHINGTON

1. WHITE HOUSE
2. CONGRESSIONAL LIBRARY
3. THE CAPITOL
4. PAN AMERICAN UNION
5. TREASURY BUILDING
6. STATE, WAR, & NAVY DEPTS.
7. INTERNAL REVENUE BUREAU
8. BUREAU OF ENGRAVING
9. DEPT. OF COMMERCE


TERRITORIAL GROWTH OF THE
UNITED STATES
Date of ratification of the Constitution shown thus: 1788
Date of admission of State into the Union shown thus: 1818
BRITISH POSSESSIONS
Finally Acquired by Treaty with Great Britain in 1818
OREGON COUNTRY
Title to this territory is based upon
1. Discovery and Exploration, 1792-1805
2. Contiguity to Louisiana Purchase, 1803
3. For Settlement, 1811
4. Treaty with Spain, 1819
5. Treaty with Great Britain, 1846
Acquired by purchase from France, 1803 for 15 Million Dollars
MEXICAN CESSION 1848
Ceded to the United States after the Mexican War
Indemnity to Mexico, 15 Million Dollars
Mexican Cession of 1853 or Gadsden Purchase 10 Million Dollars
TEXAS ANNEXATION 1845
CEDED BY TEXAS 1850 for 10 Million Dollars
ORIGINAL AREA OF THE UNITED STATES 1783
Ceded by Massachusetts, 1785
Ceded by Connecticut, 1786-1800
Ceded by Virginia, 1784
Ceded by North Carolina, 1790
Ceded by South Carolina, 1787
Ceded by Georgia, 1802
After their Cessions to the
Ceded by Spain 1819
Annexed by U.S. 1812
GULF OF MEXICO
ATLANTIC OCEAN
PACIFIC OCEAN
PUERTO RICO
Ceded by Spain, 1898
VIRGIN IS. from Denmark, 1916
Panama Canal Zone granted to U.S. 1903
PHILIPPINE ISLANDS
Ceded by Spain 1898
ALASKA
RUSSIAN CESSION 1867
Purchased for 7,200,000 Dollars
GUAM, Ceded by Spain, 1898
WAKE I. Annexed 1899
MIDWAY IS.
HAWAII, Annexed 1898
SAMOA, Acquired 1900
Scale of English Miles
COPYRIGHT, 1934 BY G. & C. MERRIAM CO. SPRINGFIELD, MASS.
J. W. CLEMENT CO., BUFFALO, N. Y.

UNITED STATES
SCALE OF STATUTE MILES
COPYRIGHT 1924 BY G & C MERRIAM COMPANY SPRINGFIELD MASS
J. W. CLEMENT CO. BUFFALO N Y
DOMINION OF CANADA
GULF OF MEXICO
ATLANTIC OCEAN
PACIFIC OCEAN
MEXICO
ALASKA
Scale of Statute Miles
Western portion of ALEUTIAN ISLANDS
GULF OF ALASKA
BERING SEA
ARCTIC OCEAN
BAHAMA ISLANDS
Longitude West from Greenwich

freemen in a primary assembly, known as the "**town meeting.**" In a few of the places in the middle colonies existed **borough or city governments.** In all cases the control of the local government was never far from the people governed.

English Control. To the English government the colonists were Englishmen across the sea who had no representation in Parliament. England exercised her control over these scattered subjects, first by the right to grant ownership and control of lands; then through the appointment of governors for the royal provinces and pressure upon the proprietors of the proprietary provinces; then by instructions to the governors. At the time of the Revolution only Connecticut and Rhode Island were full chartered colonies outside the sphere of royally appointed officials.

Besides the governor England appointed officials, inspectors of customs, collectors of revenue, and the like, to enforce or to inspect the enforcement of the laws. Appeals could be, and sometimes were, taken from colonial courts to the Privy Council in England. As for legislation, the charters were generally held to be beyond the authority of Parliament; and Parliament passed no local laws for individual colonies, but in matters of trade and the foreign policy of the mother country an act of Parliament was binding on all the colonies.

Indian and Colonial Wars. The three principal nations, the Spanish, the French, and the English, who settled in America, had each its own **methods with the Indians.** The Spaniards practically enslaved and baptized the Indians; the French baptized the Indians, traded and intermarried with them; the English crowded them out of their hunting grounds and avoided them, and only now and then a man, like John Eliot, attempted to Christianize them. The French soon gained an ascendancy over the Indians, who proved valuable allies in the stern conflict with the English.

In almost every English colony the **relations with the Indians** were the same. At first the natives looked on the settlers with tolerant curiosity. Later, when it was found that the English took rather than shared the hunting grounds, wars broke out. In these wars, whether the **Pequot War** of 1637 or the terrible battles of 1622 in Virginia, the colonists were everywhere successful, except against the **Five Nations** of the Iroquois, who held their own till the Revolution of 1775.

The second stage came in each colony twenty to fifty years later and was far more serious. In Virginia in 1644 Opechancanough led a successful raid, while New England was scourged by **King Philip's War** in 1675. In Virginia in 1676, under the leadership of Nathaniel Bacon, the Indians were finally defeated. Of a similar sort were the **Tuscarora War** in North Carolina and the **Yamassee struggle** in South Carolina.

Intercolonial Wars. In the series of European wars from 1689 to 1763, the English colonies were always drawn in against the French on the north and the Spaniards on the south. During **King William's War** Port Royal, Acadia, was captured, but returned to the French by the treaty of 1697. In 1701 began the War of the Spanish Succession, called in America **Queen Anne's War,** which included Indian raids upon the New England settlements, the second capture of Port Royal and, by the Peace of Utrecht (1713), the transfer of all Acadia, thereafter known as Nova Scotia. The Austrian Succession in Europe led to **King George's War** in America (1744), in which the French fortress of Louisburg on Cape Breton Island was taken (1745).

In 1754 the outbreak of the **French and Indian War** was the first gun in the European Seven Years' War. One of the episodes was the expedition against Fort Duquesne (modern Pittsburgh) and the **defeat of General Braddock** (1755). Fort Duquesne was later captured, and also Quebec (1759) and Montreal (1760). By the Treaty of Paris (1763) France surrendered to Great Britain all claims to territory east of the Mississippi, while to compensate her ally, Spain, for sharing the war and losing the Floridas, France transferred to her western Louisiana, including the city of New Orleans. Thus, by the middle of the eighteenth century the English had eliminated all foreign claimants to the region east of the Mississippi and from Hudson Bay to the Gulf of Mexico.

Movements toward Union. The **English colonies** in America were **individualistic.** Many of them were founded by small religious sects, others by mercantile companies, but all had a keen sense of their own interests and significance; nevertheless, the idea of colonial union was in the minds of the colonists as early as 1643, when a union was formed between Massachusetts, Plymouth, Connecticut, and New Haven. This **New England Confederation,** as it was called, aided the colonists in their struggles with the Indians and controversies with the Dutch, but was looked upon with disfavor by the English government and came to an end in 1684. The home government forced the New England colonies to consolidate under the tyranny of Andros, and in 1686 New York was joined to this government. But at the "**Glorious Revolution**" of 1688-89 this temporary involuntary union fell apart.

During the struggles with the French and Indians from 1689 to 1763 the British government attempted to bring about co-operation in military affairs; but the colonists were jealous of their own prerogatives and were slow to come to one another's aid. In 1754, at a Congress of Commissioners called at Albany, Benjamin Franklin presented a scheme for colonial union called the **Albany Plan.** This was objected to by the colonists because it gave the king too great power and by the English authorities because it was felt to be too democratic. Not until the Revolutionary era did the colonists form an **effective union.**

The Revolutionary Era. The causes for the American Revolution appear distinctly soon after the accession of George III, in 1760. The **English government** had always **claimed legal supremacy.** An act of Parliament was superior to all colonial statutes in general matters, especially in trade. The so-called **Acts of Trade** were meant to restrict the commerce and manufactures of the colonies. In local matters the danger from the French in Canada made the home government cautious until England was better able to enforce her ideas upon the colonies. Both home British and colonial British looked upon England as the center and head of a great colonial empire. The only central authorities were a hereditary king and a parliament in which the colonists could have no representation.

By the colonial system embodied in the Acts of Trade Great Britain had long sought to secure for home merchants the profits of the colonial empire and at the same time to grant protection to all of its outlying members. This policy was first put into the form of law by the **Ordinance of 1651** and the subsequent navigation acts down to the **Molasses Act** of 1733 and the **Sugar Act** of 1764. By this policy the colonies were protected against competition in the British markets in certain products; but were compelled to make their direct purchases only from the home or colonial members of the empire. Thus, Virginia was given the tobacco monopoly as against tobacco farms in England, but had to buy hardware and cloth from England. New England had a profitable share in the carrying trade of the British Empire, but was compelled to buy its molasses only from English colonies. With some exceptions **all commerce** with foreign nations was required to go **through Great Britain,** and was there subject to taxation. The execution of this policy was lax, and smuggling and other forms of illegal trade were habitual in the colonies. In 1763 Great Britain felt the enormous cost of the war with France and thought it reasonable to divide the cost of the military protection of the colonies.

The policy as adopted included **taxation** to be laid on the colonists by act of Parliament — the proceeds to be used **for colonial defense.** Opposition at once arose in the colonies. For years they had enjoyed forbidden trade with French, Spanish, and Dutch colonies. Under the protective Sugar Act the English West Indies were able to raise the price of sugar and molasses, while European goods coming through England cost more and were also taxed. The colonists felt that since they maintained at their own expense their colonial governments and had burdened themselves with debt in the wars with the Indians and French, which were for the defense of the British Empire as well as their own protection, they had indirectly contributed their share to the imperial expenses.

A second ground of colonial opposition lay in the policy of the British government, not simply to enforce this commercial policy, but to use the proceeds of the taxes for the payment of British officials in the colonies. If the officials were paid from taxes levied by Parliament they would be subject to English rather than colonial control.

The issue was brought to a head by the passage of the **Stamp Act** (1765), which laid stamp duties on deeds, notes, bills, and other documents. Local opposition appeared in every colony, and 28 delegates, representing nine colonies, assembled in New York at the **Stamp-Act Congress.** There a **Declaration of Rights** was adopted, which claimed for the colonists freedom from all internal taxes not laid by their representatives. This was the first of a series of protests which culminated in the Revolution of 1775. Intense opposition to the **Stamp Act** caused its repeal, but the repeal act reasserted a right of taxation. It was then determined in the **Townshend Acts** (1767) to raise revenue by duties on colonial imports, thus avoiding the issue of internal taxation without representation. The answer of the colonies was unmistakable. Massachusetts initiated an intercolonial resistance. The Virginia Assembly passed resolutions asserting that the Virginia Assembly had the sole right to lay taxes upon the people. These theoretical statements received practical force by the establishment of **Non-Importation Agreements,** by which the colonists agreed not to use the taxed goods. Thus the Townshend Acts were defeated.

Committees of Correspondence (first organized by New York in 1764) were appointed by Massachusetts and Virginia in 1772 and 1773 as a means of consolidating public opinion in the other colonies.

Although the Townshend Acts were partially repealed, a light duty was maintained on tea, which was sold cheaper than in England. The colonists refused to purchase the taxed tea because it would then become an admission of the right of Parliament to tax the colonies. The tea in Boston was destroyed in a riotous outbreak known as the **Boston Tea Party** (1773). The English answer to this defiance was aimed directly at the people of Massachusetts. The port of Boston was closed by statute, the charter of Massachusetts was suspended, trials outside the colony were provided for, and the quartering of British troops sanctioned within the province.

The colonial reply was the **First Continental Congress,** summoned at Philadelphia, September 5, 1774, twelve colonies participating. It formulated a **Declaration of Rights.** It drew up the Association, which was in effect a boycott of British goods and slaves, including an article against taxation without representation.

Great statesmen in England, including Lord Chatham, worked for conciliation. The king and his subservient ministers, supported by Parliament, stood for repressive measures. Collisions occurred between the British troops and the citizens of Boston. Military stores were collected by the leaders of the people at Concord and elsewhere.

The Revolution. The **first armed clash** of the Revolution took place at **Lexington and Concord,** April 19, 1775. At Lexington the minutemen stood firmly until fired upon by the British, when they retired; at Concord, a few hours later, they rallied and their force, now augmented, drove back the British to Boston. On June 17, 1775, the colonists, attempting to fortify **Bunker Hill,** were finally driven from the field. It was a dear victory, for it cost 1,000 British troops and proved that militia could hold regulars.

The Second Continental Congress assembled May 10, 1775, at Philadelphia, and at once placed itself at the head of military and naval affairs. **George Washington** was chosen Commander in Chief of the American army and took command at Cambridge. On March 17, 1776, he forced the evacuation of Boston by the British. On July 4, 1776, Congress adopted the **Declaration of Independence,** in which it declared the colonies independent of Great Britain and stated their case to the European nations.

The Revolutionary War lasted for seven years, during which time Great Britain employed not only English troops, but also hired Hessians from Germany. During the first period of the war the conflict centered between the Hudson and the Delaware. New York was captured in 1776 and Washington was obliged to retreat across New Jersey. Philadelphia was captured by the British in 1777.

In 1777 the British under Burgoyne marched south from Canada, but were defeated, and surrendered at **Saratoga.** As a result the French government, in 1778, recognized the **independence of the United States** and made a treaty of alliance by which supplies, troops, and above all, the French fleet, were sent to aid the colonists.

The last period of the conflict was in the South. Here the British were at first successful, but by a series of masterly engagements **General Nathanael Greene** cleared the territory. Cornwallis returned to Yorktown; and while a French fleet held up the British relief expedition, a consolidated American and French army besieged him and captured his whole army. By the Treaty of Paris (1783) Great Britain acknowledged the independence of the United States and agreed to formulate boundaries: on the north, substantially as at present; on the west, the Mississippi; on the south, the Floridas, which the Spanish had regained during the war.

The Critical Period. Although the colonies had achieved independence, they had not secured stability. They were burdened with debt, their trade disorganized, their currency literally "not worth a 'Continental,'" as the bills of credit issued by Congress were called. During the war the Second Continental Congress framed **Articles of Confederation** (1777), which provided for a league between the colonies and which made a division between the powers to be exercised by Congress, representing the central government on the one hand, and the States, representing the local governments, on the other.

Several faults revealed themselves in this plan. It operated not upon citizens, but upon States; it gave Congress no power to tax individuals, but only to make requisitions upon the States; it did not authorize a general regulation of foreign or interstate commerce; it could not be amended without the unanimous consent of all the States, nor could Congress pass important legislation without the assent of three fourths of the States. Weak as this instrument was, several States delayed to adopt it in definite form until 1781; nor could they be persuaded to amend it by giving Congress more power in the years which followed.

1932 *(continued).*

April 21. Governor Rolph of California refuses to grant a pardon to Thomas J. Mooney.

May 2. The **House** of Representatives **passes the Goldsborough measure** directing the Federal Reserve System to restore commodity prices to the level of 1926.

The House of Representatives passes a bill appropriating $100,000,000 for pensions for war widows and orphans.

May 3. The House passes the economy bill amended to provide for savings of only $38,124,000 in place of the original $206,000,000.

May 7. The United States Steel Corporation reduces wages by approximately fifteen per cent.

May 9. The tax bill, with numerous amendments, is introduced into the Senate.

Former Secretary Fall is released from the New Mexico State Penitentiary.

May 11. **President vetoes the tariff bill.**

May 13. The leaders of the principal railroad labor unions urge the postponement of foreign debt payments for twenty-five years in order to relieve the depression.

May 21. Mrs. Amelia Earhart Putnam lands in Londonderry, Northern Ireland, after a successful flight of fourteen hours and fifty-six minutes from Harbor Grace, Newfoundland.

May 29. The bonus expeditionary army arrives at Washington.

May 31. The **Senate passes the tax bill.** This, with amendments, is approved by the House and accepted by the Senate on June 4. It provides for increased taxes on incomes, corporations, inheritances, tariff duties on coal, lumber, copper, and oil, together with a large number of miscellaneous excise taxes.

June 6. John D. Rockefeller, Jr., announces that, in his belief, the Eighteenth Amendment should be repealed.

June 7. The House of Representatives passes the so-called Garner bill to expend $2,290,000,000 for public works.

June 14–17. The **Republican convention,** held **at Chicago,** adopts a plank for the repeal and modification of the Eighteenth Amendment, and renominates Herbert Hoover and Charles Curtis for president and vice-president.

June 15. The House passes a bill for the cash payment of the bonus. This is rejected by the Senate on June 17.

June 21. The president signs the Unemployment Relief Bill, providing for more than $2,000,000,000, $1,800,000,000 to be loaned to the states and cities for relief work on self-liquidating projects.

June 27–July 2. The **Democratic convention** is held **at Chicago,** adopting a plank for the direct repeal of the Eighteenth Amendment, and nominates Franklin D. Roosevelt and John N. Garner for president and vice-president.

June 30. The omnibus economy bill is signed by the president.

July 16. Congress adjourns.

July 18. A **pact is signed with Canada for the St. Lawrence water-power project,** providing for the division of water for power purposes between the United States and Canada and a division of the cost.

July 21. The Interstate Commerce Commission proposes a plan for the consolidation of the eastern railroads, excluding New England, into four main systems. Not taken up.

July 22. The president signs the Federal Home Bank Bill which provides for a system of Federal aid in carrying mortgages for home builders.

July 28–29. The **bonus expedition** of old soldiers **is expelled from Washington** with the aid of the regular army.

August. Farmers in Iowa attempt to interrupt the transportation of agricultural products in order to increase the price.

Aug. 9. Secretary of State Stimson declares that the **United States will not recognize territory gained by illegal wars.** This arouses resentment in Japan.

Sept. 2. After public hearings in Albany, James J. Walker resigns as mayor of New York.

Sept. 11. Attorney General Mitchell's report on the recent bonus expeditionary force is made public, asserting that many of the marchers had criminal records, that Communistic meetings were frequently held, and that the use of troops was necessary.

Sept. 13. The Democrats elect the Governor and two members of Congress in Maine.

Sept. 14. Estonia, Latvia, and Poland postpone for two years the payment of the principal on their debt to the United States.

Sept. 29. President Hoover requests both the operators and unions to postpone discussion concerning wage cuts.

Sept. 29. Germany fails to make the payment due on the debt arising from mixed claims and army occupation.

Oct. 21. The **United States agrees to an extension of the arms truce** proposed by the Geneva Conference until March 1, 1933.

Nov. 9. **Franklin D. Roosevelt is elected President** of the United States by a popular vote of 22,521,525 and an electoral vote of 472 over Herbert Hoover who received a popular vote of 15,957,537 and an electoral vote of 59 (Connecticut, Delaware, Maine, Nevada, Pennsylvania, and Vermont).

Nov. 11–Dec. 15. Notes are exchanged between Great Britain, France, and the United States concerning the **re-examination of the question** of payment of **international debts.**

Nov. 12. President Hoover invites President-elect Roosevelt to a conference on the question of debt revision.

Nov. 22–Dec. 21. A conference is held and telegrams exchanged by President Hoover and President-elect Roosevelt on action in the crisis, Roosevelt declining to assume responsibility because of lack of power.

Dec. 2. Congress meets and, at the advice of Speaker Garner, votes upon a resolution repealing the Eighteenth Amendment which at this time fails to obtain the necessary two thirds.

Dec. 6. The annual message of President Hoover urges the balancing of the budget by economy, pay cuts, and increased taxation, including the sales tax.

Dec. 9. President Hoover issues an order consolidating administrative departments in the interests of economy. This order becomes effective unless rejected by Congress.

Dec. 15. Czechoslovakia, Great Britain, Finland, Italy, Lithuania, and Latvia pay their installments on the debts to the United States, while Belgium, Estonia, France, Hungary, and Poland default.

Dec. 17. The **Senate passes a bill granting independence to the Philippines under certain conditions** at the end of twelve years.

Dec. 21. The House passes a bill levying a tax on beer containing 3½ per cent of alcohol.

Dec. 29. The House adopts the Philippine Independence Bill.

1933. Immigration, 23,068; alien emigration, 80,081; alien immigrants deported, 19,865.

Jan. 5. Former President **Calvin Coolidge dies at Northampton,** Massachusetts.

Jan. 13. The **president vetoes the Philippine Independence Bill** but the House overrides the veto (274–94).

Jan. 16. With the assent of President-elect Roosevelt, Secretary Stimson reaffirms the doctrine that the United States will not recognize territory gained contrary to the terms of the Kellogg Peace Pact.

Jan. 17. The **Senate overrides the president's veto of the Philippine Independence Bill** (66–26) which therefore takes effect.

Jan. 21. President-elect Roosevelt announces a comprehensive plan for the operation of the Muscle Shoals plant.

Jan. 23. Through the action of Missouri the **"lame duck" amendment is ratified.** It provides that the terms of the president and vice-president shall end at noon on the twentieth day of January and the terms of the Senators and Representatives on the third day of January, on which date a new Congress shall assemble.

Feb. 8. President-elect Roosevelt summons the governors of all the States to meet in conference at the White House on March 6.

Feb. 14. Giuseppe Zangara fires five shots in an **attempt to kill President-elect Roosevelt at Miami, Florida.** Mr. Roosevelt is uninjured but Mayor Cermak of Chicago is fatally wounded.

Feb. 16. The Senate adopts a resolution to repeal the Eighteenth Amendment by conventions held within the States. The House agrees February 20.

Feb. 27. The Senate passes the Bankruptcy Bill. The House agrees March 1.

March 2. Senator Walsh, Attorney General designate, dies on train to Washington.

March 4. **Franklin Delano Roosevelt inaugurated thirty-second President.** In a brief inaugural address he promises to drive the "money changers" from their high seats and to take measures for the restoration of confidence.

The Roosevelt cabinet is composed as follows: Secretary of State, Senator Cordell Hull of Tennessee; Secretary of the Treasury, William H. Woodin of Pennsylvania and New York; Secretary of War, George H. Dern of Utah; Attorney General, Homer S. Cummings of Connecticut; Secretary of the Navy, Senator Claude A. Swanson of Virginia; Postmaster General, James A. Farley of New York; Secretary of the Interior, Harold Ickes of Illinois; Secretary of Agriculture, Henry A. Wallace of Iowa; Secretary of Commerce, Daniel C. Roper of South Carolina; Secretary of Labor, Frances Perkins of New York.

March 6. The president proclaims a "**bank holiday**" on account of widespread banking crises and numerous bank failures, and summons the seventy-third Congress for a special session on March 9. Banks reopen March 12, 13, and 14.

March 9. Congress meets and passes the **Emergency Bank Bill** authorizing the president to regulate credit, gold and silver currency and exchange; to require the delivery to the government of all gold and gold certificates; to regulate the opening or liquidating of all national banks.

March 11. The House passes the Economy Bill authorizing the president to reduce federal salaries and pensions, etc., which the Senate adopts March 15.

March 14. The House adopts a bill legalizing 3.2% alcoholic content beer.

March 22. The House approves the **Farm Relief Bill** which by means of acreage limitation and process tax is expected to increase prices of agricultural products.

March 30. The House passes the bill for relief of unemployment through reforestation.

April 1. By executive order the president reduces salaries, pensions, and benefits with an estimated saving of $400,000,000. This order is later modified.

April 3. An Administration bill is introduced to refinance farm mortgages at a lower rate of interest.

April 4. The navy dirigible Akron is destroyed by a storm at sea with a loss of 73.

April 5. The president issues a proclamation requiring the return of gold and gold certificates by May 1.

April 7. Beer is legally sold in those States authorizing the sale.

April 10. The president sends a special message suggesting the **creation** of a **Tennessee Valley Authority** to develop water power in Tennessee River drainage basin and Muscle Shoals.

April 20. The president orders an **embargo on** shipments of **gold** not earmarked.

April 24. President Roosevelt and Prime Minister MacDonald issue a joint statement on policies to be followed at the world monetary and economic conference. Interviews are also held by the president with former Prime Minister Herriot of France and representatives of the leading countries.

April 25. The House passes the Tennessee Valley Authority Bill.

April 26. A bill to reorganize railroads in the interest of economy and efficiency through the appointment of a railroad co-ordinator with power to relieve railroads from anti-trust laws, Interstate Commerce Commission, state and federal laws, for one year.

April 28. **Home mortgage bill passed** by the House authorizing a $2,000,000,000 corporation to issue 4% government bonds in exchange for mortgages, etc.

The Senate passes the **Farm Relief Bill** providing for the sale of wheat, cotton, corn, hogs, dairy products, tobacco, beet and cane sugar at average prices of 1909–1924, to refinance farm mortgages at 4½%. An **inflation amendment** authorizes the president to **raise dollar prices** by: (1) increasing Federal Reserve credits by $3,000,000,000; (2) issuing $3,000,000,000 Federal notes not secured by gold to buy back government securities; (3) devaluating the gold dollar by as much as 50%. The bill is adopted by the House May 3.

May 5. Bill for supervision of the sale of securities is passed by the House. "Let the seller beware." Passed by the Senate May 8.

May 16. The president sends a message to Congress informing them of messages he has sent to heads of nations at the disarmament conference suggesting the elimination of weapons in offensive warfare, no increase of armaments, no nation to send armed forces over its borders.

May 23. Senate investigation of the J. P. Morgan banking house and other leading Wall Street bankers reveals many practices which, if legal, are condemned by public opinion, and suggests further regulation of banking and revision of tax systems. (See May 26 and June 16.)

May 26. The House passes the **Industrial Recovery Bill** authorizing the president to encourage, promote and require organization within private industry, for the better control of production, elimination of unfair competition, and improvement of standards of labor; to use any agencies, public and private, to secure adoption of codes backed by government licenses and fines; to appropriate $3,300,000 for public works. The Act also provides an increase in tax on gasoline, an increase in the income tax from 6% to 10%, and application of income taxes to dividends of corporations.

May 27. The **Century of Progress Exposition** opens **at Chicago.**

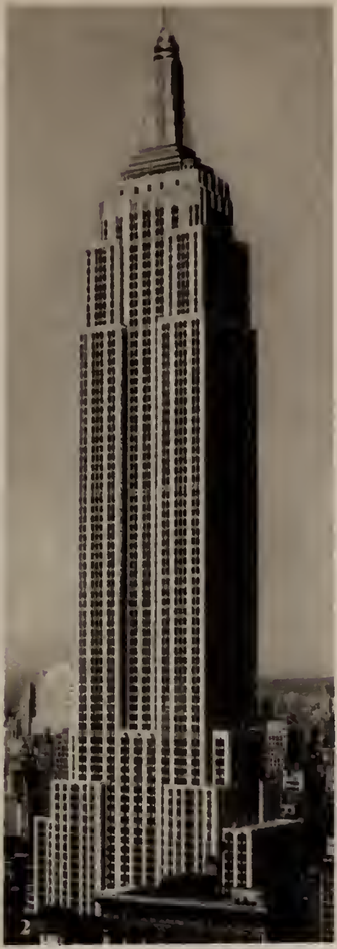
June 10. The president issues orders, to become effective in sixty days, reorganizing and consolidating certain governmental functions in the interest of economy.

June 15. Great Britain pays $10,000,000 in silver toward the June interest on her war debt, and asks revision. Italy and Latvia make partial payments. Finland pays in full.

June 16. The president signs the Industrial Recovery Act, the Glass Steagall **Banking Reform Act** which provides for the insurance of deposits up to $2,500 in banks belonging to the Federal Reserve System, and the Railroad Act.

N O P Q R S T U V W X Y Z

EXAMPLES OF HIGH BUILDINGS



1. BANK OF MANHATTAN
NEW YORK

2. EMPIRE STATE BUILDING
NEW YORK

3. ROCKEFELLER CENTER
NEW YORK

4. TRIBUNE BUILDING
CHICAGO

5. CHRYSLER BUILDING
NEW YORK

6. PALMOLIVE BUILDING
CHICAGO

7. BELL TELEPHONE BUILDING
ST. LOUIS

8. WOOLWORTH BUILDING
NEW YORK

1933 (*continued*).

June 19. Bernard Baruch is appointed aide in the State Department.

June 20. General Hugh S. Johnson, Administrator of Industrial Recovery Act, successfully brings **pressure to bear on industries to adopt codes.**

Joseph B. Eastman, formerly of the Interstate Commerce Commission, now railroad co-ordinator, persuades railroads to postpone reduction of wages for eight months.

July 1. 275,000 men have been mobilized in the Civilian Conservation Corps and are distributed in camps throughout the country.

July 8. The president appeals to the Democrats of Alabama to support the party platform and vote for the repeal of the Eighteenth Amendment.

July 9. The president signs the cotton export industry code, providing for fair competition, maximum hours, abolition of child labor and minimum wages. Throughout the summer the **major industries drew up codes** along these lines, which were submitted to the National Recovery Administrator and finally approved by the President.

The wheat processing tax of thirty cents a bushel, established under the Farm Relief Act, becomes effective.

July 12. The president directs Postmaster General Farley to place **all postmasters under civil service rules.**

July 17. Because of the delay in securing approval of the codes submitted by different industries, the National Recovery Administrator plans a blanket code.

July 21. The stock market, in a 9,570,000 share day, loses many of the gains which had resulted from unwise speculations.

Aug. 1. The **Blanket Code** for industry and trade — NRA — **goes into effect.** By this all child labor is forbidden. Maximum hours for industrial workers are fixed at thirty-five per week, for nonindustrial workers at forty; minimum wages for industrial workers at forty cents per hour, and for nonindustrial workers from twelve to fifteen dollars a week.

A processing tax on cotton of 4.2% goes into effect.

Secretary Ickes, Emergency Administrator of Public Works, has already assigned a billion dollars for public works in addition to $400,000,000 assigned to the states for highway construction and $238,000,000 for naval construction.

Aug. 3. The Navy Department awards contracts for twenty-one ships to be built at private shipyards and sixteen at government navy yards.

Aug. 4. **Industrial Relations Board.** Senator Wagner of New York, William Green, President of the American Federation of Labor, Dr. Leo Wolman, Professor of Economics at Columbia University, John L. Lewis, President of United Mine Workers of America, Walter C. Teagle, President of Standard Oil Company of New Jersey, Gerard Swope, President of General Electric Company, and Louis E. Kirstein, General Manager of William Filene's Sons Company of Boston, are appointed by the President as members of an Industrial Relation Board to adjudicate industrial disputes.

Aug. 27. Raymond Moley, Assistant Secretary of State and confidential adviser of the President, resigns.

Sept. 14. It is announced by the Tennessee Valley authorities that the rate for small users of electricity will be $1.50 a month.

Processing taxes on tobacco, varying in range from 1.7 cents to 6.1 cents per pound, are announced to become effective October 1.

Sept. 16. An agreement is finally reached with the soft coal operators in the Appalachian region, and the **soft coal code is signed** September 19.

Sept. 21. The United Mine Workers sign a wage contract with the operators of the Appalachian fields which raises the wages by 20%.

President Roosevelt authorizes the Agricultural Adjustment Administration to buy $75,000,000 worth of food and clothing for distribution among the destitute and unemployed.

Sept. 22. President Roosevelt signs the coal wage contract.

Oct. 3. The University in Exile, a name given to the noted German professors who give courses at the New School for Social Research, New York City, is opened.

Oct. 4. President Roosevelt signs seventeen codes for industry under the NRA.

Oct. 7. Morris Hillquit, Socialist leader, lawyer, and author, dies at the age of sixty-four.

Oct. 11. The Treasury calls for redemption April 15, 1934, $1,875,000,000 of the Fourth Liberty Loan and offers new twelve-year bonds at 3¼%.

Oct. 13. The American Federation of Labor votes a boycott on all German products until the persecution of trade unionists and Jews ceases.

Oct. 20. The President makes public his invitation of October 10 to the Soviet government to send a representative to discuss recognition, together with the Soviet's reply appointing M. M. Litvinov as Russian representative.

Oct. 22. It is announced that more than $2,000,000,000 have been allocated for public works.

President Roosevelt announces that the **government will buy gold** in the attempt to fix the price of gold on the basis of commodity values. This policy starts October 25, when the Government announced the price of gold at twenty-seven cents above the world price. The price offered by the United States is steadily increased and the Government begins to purchase gold in foreign markets November 1.

Nov. 2. The governors of five Western States confer with President Roosevelt, demanding fixed minimum prices on agricultural products. This proposal the President rejects on November 4.

Nov. 4. United States denounces the extradition treaty with Greece because of the failure to surrender Samuel Insull of Chicago accused of frauds.

Nov. 6. The Soviet Commissar of Foreign Affairs, Maksim Litvinov, arrives in this country and begins his conference with the President on November 7.

Nov. 8. Elections are held for delegates to conventions to ratify the Twenty-first Amendment, and result in a victory for ratification in Pennsylvania, Ohio, Utah and Kentucky. North and South Carolina are the only States which voted against ratification. The election for Mayor in New York results in a victory for the Fusion candidate, Fiorella H. LaGuardia.

Nov. 15. President Roosevelt grants Secretary of the Treasury Woodin an indefinite leave of absence to recuperate from a serious illness. Under Secretary of the Treasury Dean Acheson withdraws, and Henry Morgenthau, Jr., is appointed to his place and becomes Acting Secretary of the Treasury to act in Secretary Woodin's absence.

Nov. 16. The **United States recognizes the Soviet government** on the following terms: that it will not engage in propaganda against American institutions; that it will permit complete freedom of worship; that the United States citizens in Russia will enjoy legal protection not less favorable than those enjoyed by the nationals of the most-favored nations; that preparatory to the final settlement of claims the Soviet government will not prosecute claims against Americans; that the Soviet government waives all claims for damages arising from the military occupation of Siberia in 1918.

Nov. 21. Dr. O. M. W. Sprague, economic adviser to the Treasury, resigns as a protest against the president's monetary policy.

Nov. 24. Former Governor Alfred E. Smith attacks President Roosevelt's monetary policy as resulting in "baloney dollars."

Dec. 5. The **Twenty-first Amendment** to the Constitution is **proclaimed,** through repealing of the Eighteenth Amendment, which established prohibition.

Dec. 7. The issue of 2¼ per cent one-year Treasury notes oversubscribed.

Dec. 13. **Secretary Woodin tenders his resignation** on account of ill health. It is accepted December 20.

Dec. 15. Finland pays in full the installment due on **the War debt.** Great Britain, Italy, Czechoslovakia, Latvia, and Lithuania make partial or token **payments.** France, Belgium, Poland, and Estonia make no payment.

Dec. 21. In accordance with the Pact made at the London Economic Conference, the president orders the purchase of 24,421,410 ounces of newly mined silver yearly.

President Roosevelt announces that the United States will not join the League of Nations but will co-operate in nonpolitical affairs and that the United States is opposed to armed intervention.

Dec. 25. Archbishop Leon Tourian, supreme head of the Armenian church in the United States, is assassinated while conducting high mass in New York.

President Roosevelt by a proclamation **restores citizenship to 1500 wartime violators** who have completed their sentences.

It is announced that United States exports have increased to 29 countries.

Dec. 31. It is announced that $324,428,488 has been expended for relief in seven months, and that 4,000,000 workers have been employed.

THE STATES OF THE UNITED STATES

IN ALPHABETICAL ORDER

NOTE: The chronological data for the significant events in the history of the individual States of the Union are drawn from official records of the United States and of the several States combined with data derived from historical and chronological books, pamphlets, and reports.

ALABAMA (22)

Admitted to the Union, 1819

Historical Outline

ALABAMA is popularly called the "**Cotton State.**" The region was originally discovered by De Soto and other Spanish explorers, became English in 1763, and was included in the territory of Mississippi set up by the Union in 1798. It received territorial government in 1817, and was admitted as a State in 1819. In spite of strong Union sentiment in the Northern centers, Alabama seceded early in January in 1861. William L. Yancey, senator and Confederate leader, was an Alabaman.

The present **constitution**, adopted in 1901, assures the political control of the whites by an educational qualification modified in favor of the whites by the so-called "grandfather clause." The sessions of the legislature were made quadrennial and sections were introduced providing for the regulation of corporations.

Originally, and for many years, Alabama was agricultural and **cotton** its chief product. But the extensive deposits of coal and iron changed it to an industrial and manufacturing State as well. During the World War its industries rapidly developed, especially shipbuilding, both for completed hulls and plate mills for fabricated vessels. Atmospheric nitrogen has been produced at Muscle Shoals on the Tennessee River, where vast electric power has attracted development.

Higher educational institutions of Alabama include the publicly controlled Alabama College, Alabama Polytechnic Institute, University of Alabama; and the privately controlled Athens College, Birmingham, Southern, Howard, Judson, Spring Hill, Womans College of Alabama, and Talladega College for Negroes.

Chronology

1702. French **settlement** begins at Mobile (old site); part of Louisiana.

1732. *June 9.* Charter of Georgia, extending to Pacific Ocean, covers portion of Alabama.

1763. *Feb. 10.* France cedes eastern Louisiana and Spain cedes Florida to Great Britain.
Oct. 7. British West Florida proclaimed; covers southern portion of Alabama.

1783. *Sept. 3.* Retrocession of West Florida to Spain: balance of Alabama becomes **part of United States**; dividing line disputed.

1795. *Oct. 27.* Spain cedes claim north of 31°.

1798. *April 7.* Mississippi Territory created.

1802. *April 24.* Georgia relinquishes claim. Added to Mississippi Territory.

1803. *April 30.* Louisiana Purchase Treaty, under which United States claims Spanish West Florida.

1813. *Feb. 12.* Act for American occupation of Alabama portion of West Florida. Added to Mississippi Territory.

1817. *March 3.* **Alabama Territory** created.

1819. *July 5–Aug. 2.* **First constitutional convention.** Adoption of Constitution by popular vote.
Dec. 14. **Admitted** to Union. (22d State.)

1831. University of Alabama organized.

1861. *Jan. 7–March 20.* **Second constitutional convention.** Ordinance of **secession** January 11. Amendments not submitted to people.

1865. *Sept. 12–30.* **Third constitutional convention.** Secession declared null and void; **slavery abolished.**

1867. *Nov. 5–Dec. 6.* **Fourth** (Reconstruction) **constitutional convention.** New constitution fails of ratification, February 8, 1868, but is imposed on the State by Congress.

1868. *July 20.* **Readmitted** to Union.
Dec. 20. Motto Adopted: Here we rest.

1872. Alabama Polytechnic Institute founded.

1875. *Sept. 6–Oct. 2.* **Fifth constitutional convention.** New **constitution, ratified** by people, in force December 6.

1876. Pig iron first smelted with coke, making possible future leading industry.

1880. Tuskegee Normal and Industrial Institute founded by Booker T. Washington.

1901. *May 21–Sept. 3.* **Sixth constitutional convention.** New **constitution, ratified** by the people, in force November 28.

1917. Graphite industry accelerates — about half the entire supply in the United States.

1925. Wilson Dam at Muscle Shoals developed

1930. Iron and steel cost production at Birmingham acclaimed potentially cheapest in world.

1932. *March 21.* Destructive tornado swept through the northern part of the State.
State Public Service Commission orders utility companies to set up reserves for the protection of their capital and to make adequate provision annually for depreciation.

ARIZONA (48)

Admitted to the Union, 1912

Historical Outline

ARIZONA, sometimes known as the "**Valentine State,**" from its having been admitted on *February 14*, 1912, was Spanish and Mexican from the first explorations to the transfer to the United States by the Mexican treaties of 1848 and 1853. It was included in the territory of New Mexico in 1850, organized as a separate territory in 1863, refused to join with New Mexico as a State in 1906, and submitted a **constitution** for the approval of Congress in 1911. The resolution accepting this constitution and admitting Arizona was vetoed by President Taft. Arizona withdrew the objectionable clauses and was admitted. By constitutional amendments, ratified in November, 1912, Arizona restored the provision for the **recall of judges** and extended the **suffrage to women.** The constitution provides for a governor elected for three years, a Senate of 19 and House of Representatives of 35, all elected for two years. The State has been Democratic in national and State elections since its admission.

There is a **good system of** elementary **schools;** there are also high schools, two public normal schools, the (State) University of Arizona, and an agricultural school in connection with the latter.

Arizona, with its dry climate, is not well adapted for agriculture; but where **irrigation** is used the soil is productive. The wide pasture lands are favorable for the rearing of cattle and sheep. The **national forests** in the State have an area of over 11,000,000 acres. The **mining** industries of the State are important, the chief minerals being copper, silver, gold, and lead. The most important manufacturing industries are connected with copper smelting and refining, car construction and repair, lumber and timber working, flour and gristmilling.

The State is a haven for consumptives; the climate is dry and healthful. The **Grand Canyon** of the Colorado and other scenic wonders attract great numbers of visitors.

Chronology

1370. Oraibi in existence. Oldest community in U. S.

1538. Juan de la Asunción and Pedro Nadol penetrate Arizona.

1598–1845. Under Spanish dominion (see NEW MEXICO).

1629. Franciscan missions to the Hopi established.

1848. *Feb. 2.* Region, except southern belt, part of province of New Mexico **ceded to United States** by Mexico; **Treaty of Guadalupe Hidalgo.**

1850. *Sept. 9.* New Mexico Territory organized.

1853. *Dec. 30.* **Gadsden Purchase.** Southern belt ceded by Mexico.

1863. *Feb. 24.* **Arizona Territory** organized.
Motto adopted: Ditat Deus.

1891. *Sept. 1–Oct. 3.* **First constitutional convention.** Draft constitution ratified by people. No action by Congress.
University of Arizona opened.

1910. *Oct. 10–Dec. 9.* **Second constitutional convention. Constitution ratified** by people February 9, 1911.

1912. *Feb. 14.* **Admitted** to Union. (48th State.)

1922. *Nov. 24.* **Colorado River Compact** respecting the use of waters of the Colorado River signed by commissioners of Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming, Herbert Hoover representing the United States.

1928. *Dec. 21.* President Coolidge signs **Boulder Canyon Project Act.**

1929. Record **production of copper** achieved; amount 829,206,475 pounds.

1931. *May 18.* U. S. Supreme Court decides that Arizona legally may remove water from the Colorado River system despite the interstate compacts.

1932. Legislature enacted a bill imposing a tax on chain stores.

ARKANSAS (25)

Admitted to the Union, 1836

Historical Outline

ARKANSAS, sometimes called the "**Bear State,**" originally a portion of the Louisiana Territory, received territorial organization in 1819 and was admitted as a State in 1836. It was closely connected with the best of the Southern interests and seceded May 6, 1861. For several years after the war, it was the scene of acute political conflict. The **constitution** adopted in 1874 has been frequently amended, but an attempt to adopt a new constitution extending the suffrage to women and establishing state-wide prohibition was defeated in 1918. Arkansas has been backward in **education**, but in 1907 a comprehensive system was established providing for compulsory education. No child under 14 can be employed in a manufacturing establishment unless he attends school 12 weeks in a year and can read and write English. There are two public **normal schools. Higher educational institutions** of Arkansas include the publicly controlled University of Arkansas, Arkansas State College for Negroes, and the privately controlled Arkansas College, College of the Ozarks, Galloway Woman's, Hendrix-Henderson, Jonesboro Baptist, Little Rock, Ouachita, St. Johns Seminary, and Arkansas Baptist College for Negroes.

Arkansas is an **agricultural State,** the chief crops being cotton, corn, wheat, and hay. The State has a large coal area and manganese ores, lead, and bauxite (for aluminum) are found. Arkansas produces 96% of the bauxite of the United States. The chief industries are lumbering and the production of cottonseed oil and oil cake.

Chronology

1686. Arkansas Post settled by De Tonti.

1762. *Nov. 3.* French claims to region conveyed to Spain.

1800. *Oct. 1.* Retrocession to France.

1803. *April 30.* **Ceded to United States** by Louisiana Purchase Treaty.

1804. *March 26.* Included in District of Louisiana.

1805. *March 3.* Louisiana Territory organized.

1812. *June 4.* Part of Missouri Territory succeeds part of Louisiana Territory.

1819. *March 2.* **Arkansas Territory** organized.

1836. *Jan. 4–30.* **First constitutional convention;** draws up a constitution. **Constitution** not submitted to people.
June 15. **Admitted** to Union.

1861. *March 4–June 3.* **Second constitutional convention.** Ordinance of **secession** May 6. Amendments not submitted to people.

1864. *Jan. 4–23.* **Third constitutional convention.** Amended constitution, **abolishing slavery,** ratified by popular vote March 14.

1868. *Jan. 7–Feb. 14.* **Fourth** (Reconstruction) **constitutional convention.** New constitution ratified by people in March.
June 22. **Readmitted** to Union.

1871. University of Arkansas founded.

1872. Brooks-Baxter armed conflict for governorship won by Baxter.

1874. *July 14–Sept. 7.* **Fifth constitutional convention.** Revised **constitution, ratified** by people, in force October 30.

1906. Discovery of diamonds at Murfreesboro; 10,000 found later.

1912. Initiative and referendum used for the first time in State.

1917. *Nov. 17.* **Sixth constitutional convention** meets.

1918. *Dec. 14.* Proposed new **Constitution rejected.**

1933. Commonwealth College maintains summer camp for laborers near Mena.
Hot Springs National Reservation maintains world distinction with heavy tourist traffic.

CALIFORNIA (31)

Admitted to the Union, 1850

Historical Outline

CALIFORNIA, the "**Golden State**" or "**El Dorado,**" was reached by the Spaniards between 1537 and 1542 and named after the imaginary kingdom of the Amazons of Spanish romance. Sir Francis Drake for the English visited the coast in 1579, but the English did not enforce their claims. No permanent settlements were made within the present

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limits of the State until the Franciscan missions were established, beginning in 1769; through these the Spanish culture and language were extended to the Indians. When Mexico became independent, California remained one of its provinces, but was brought into the possession of the United States in 1846–1847 through conquest by military and naval forces in the Mexican War. By the treaty with Mexico (1848) the United States retained possession of California.

In 1848 placer **gold was discovered** in quantities by Marshall at Sutter's Mill, near the spot where Coloma village now stands. Adventurers of all sorts soon were flocking to the new country (see FORTY-NINER, in the *Dictionary*), and within four years the population reached a quarter of a million.

California was admitted as a free State by the Compromise Act of 1850. In 1906 large portions of San Francisco were destroyed by **fire** following an **earthquake.** Attempt of the city government at the time to turn this disaster to its profit led to public indignation throughout the State and caused a reform movement which resulted in the constitutional amendments of 1911.

The present **constitution,** adopted in 1879, has been frequently amended; most radically in 1911 and 1914, in the way of providing more **popular control** of the government and regulating corporations and railroads. The legislature consists of a House of Representatives of 80 members elected for two years and a Senate of 40 elected for four years, one half retiring every two years. The governor is elected for a term of four years. Provisions are made for the **initiative, referendum, and recall** of all elected officers, including the judges.

The **educational system** is excellent, under the inspection and classification of the State university, which adopted the accrediting system in 1884. School attendance is compulsory for children between 8 and 15 for at least five months in each year. **Higher educational institutions** of California include the publicly controlled University of California, at Berkeley and Los Angeles; and the privately controlled Berkeley Baptist Divinity School, California Christian College, California Institute of Technology, Church Divinity School of the Pacific, College of Medical Evangelists, College of Osteopathic Physicians and Surgeons, College of Physicians and Surgeons, College of the Pacific, Dominican College of San Rafael, Golden Gate, La Verne, Loyola University, McGeorge College of Law, Mills, Oakland College of Law, Occidental, Pacific School of Religion, Pacific Union, Pacific Unitarian School for the Ministry, Pomona, St. Mary's, St. Patrick's Seminary, San Francisco Law School, San Francisco Theological Seminary, Leland Stanford University, Southwestern University, University of Redlands, University of San Francisco, University of Santa Clara, University of Southern California, and Whittier College.

Since the Civil War California has been Democratic five times, Republican seven times, and Progressive once in State elections. In national **politics** it has been normally Republican, although in 1880, 1892, and 1916 it went Democratic, and in 1912, Progressive.

The **agricultural products** of California have an annual value of over a hundred and fifty million dollars. Its diversified climate, extending from the temperate to the subtropical, is favorable to products of great variety, including not only the cereals, but subtropical fruits, citrous fruits, and the best European varieties of grapes. California has **great resources** of gold, silver, copper, lead, and quicksilver, and produces **more oil** than any other State save Oklahoma. Its chief manufacturing industries are canning and preserving, flour milling, and oil refining.

Motto: Eureka.

Chronology

1542–1543. Voyage of Cabrillo and Ferrer **basis of Spanish claim** to region.
1769. **Spanish settlement** begins at San Diego; a province of New Spain. San Francisco Bay discovered.
1771. Grape vines introduced from Spain by Franciscans.
1777. Pueblo of San José founded.
1781. Pueblo of Los Angeles founded.
1810. Beginning of Mexican struggle for independence.
1822. Spanish rule replaced by Mexican.
1826. **First American overland expedition** to reach California arrives with Jedediah Smith.
1841. First emigrant party arrives under John Bidwell.
1846. Military occupation by United States.
1848. *Jan. 24.* **Discovery of placer gold** in quantities at Sutter's Mill; great inflow of adventurers begins — the "Forty-Niners."
Feb. 2. Ceded to United States by Mexico. **Treaty of Guadalupe Hidalgo.**
1849. *Sept. 1–Oct. 13.* **First constitutional convention. Constitution ratified** by people November 13th.
1850. Admitted to the Union (31st State).
1866. California and New York pass optional **primary election laws,** the first in the United States.
1868. **University of California** instituted by law; instruction begun in 1869.
1873. Hallidie invents **rapid transit** in San Francisco.
1876. **Oil discovered** in Los Angeles County, later in Ventura County.
1878. *Sept. 28.* Second constitutional convention meets. Adjourns March 3, 1879. **New constitution, ratified** by people, in force January 1, 1880.
1894. Constitutional amendment limits suffrage to literates.
1895. **First commercial hydroelectric plant** in the world operated at Folsom.
Southern California **Fruit Exchange organized,** renamed in 1905 as the California Fruit Growers' Exchange — a **model of farmer co-operation.**
1906. Discovery of Pleistocene remains on La Brea Rancho, one of world's greatest **contributions to paleozoology.**
San Francisco earthquake broke water mains allowing fire to destroy large portion of city.
1911. California and Wisconsin establish the first modern **state budget systems.**
1913. Merit system adopted in the State civil service.
1916. Scientific harvesting of kelp, "Sea Alfalfa," begun for large scale potash production initiating major industry peculiar to Southern California.
1926. **Santa Barbara earthquake;** fire prevention equipment effective.
1929. Average cotton yield largest in United States, 375 pounds per acre.
State produced 804,200,000 gallons, one fourth of the nation's natural gas gasoline of the United States.
1929–1933. Herbert Clark Hoover of California is thirty-first President of the United States — the first President from the trans-Mississippi River region.
1930. California Fruit Growers' Exchange excels all other co-operative agricultural companies in the country in the volume of business.
Grape production reaches three billion pounds, highest yet realized. **Orange pick** reaches 32,800,000 boxes; **lemons** seven million boxes — virtually the only commercial record in the country.
1933. Los Angeles acknowledged as largest city in area in United States, 440.32 square miles; fifth in population.
Work begun on 6,400 foot suspension bridge across Golden Gate and on the eight-mile **San Francisco – Oakland Bay Bridge** via Yerba Buena Island.

COLORADO (38)

Admitted to the Union, 1876

Historical Outline

COLORADO is sometimes called the **"Centennial State,"** from the circumstance of its being admitted in 1876, the year of the centennial of United States independence.

The central Rocky Mountains were known to the Spaniards and were explored by Pike in 1806, Long in 1819, and Frémont in the early forties. The **discovery of gold** near Pikes Peak in 1858 brought the first Anglo-Saxon settlements to this region; but the difficulties of quartz mining and the discoveries in other sections checked immigration. The territory was organized in 1861 and the State admitted in 1876.

The **constitution** adopted in that year has been frequently amended, and provides for a General Assembly consisting of a Senate of 35 elected for 4 years, one half retiring every two years, and a House of Representatives of 65 elected for two years; also, a governor elected for two years. All citizens, male and female, 21 years of age are qualified as voters. Since 1912 all elective officers and judicial decisions are subject to **recall.** The **initiative and referendum** were adopted in 1910. Colorado is a doubtful State **politically,** but may be considered Republican with radical leanings tending to the Democratic party.

The **public schools** are under the supervision of a State superintendent and include the State Teachers College and a normal school. **Higher educational institutions** of Colorado include the publicly controlled Colorado Agricultural College, Colorado School of Mines, University of Colorado; and the privately controlled Colorado College, Iliff Graduate School of Theology, Loretto Heights, Regis, University of Denver, Westminster Law School.

Denver is the center of the traffic in **live stock** west of the Rocky Mountains, and slaughtering and meat packing are the principal industries of the State other than mining. The chief agricultural products are oats and corn, the yield of which is increasing owing to the extension of the **irrigation** projects. Colorado is **rich in mineral resources:** gold, silver, copper, lead, zinc, tungsten, and coal. The State abounds in attractive and popular summer and winter **resorts,** which draw at seasons a considerable Eastern population.

Chronology

1762. *Nov. 3.* Louisiana, covering by natural boundaries all the watershed of the Mississippi River to the west to include the crest of Rocky Mountains, confirmed by conveyance by France to Spain.
1800. *Oct. 1.* Retrocession of Louisiana to France.
1803. *April 30.* **Ceded to United States** by **Louisiana Purchase Treaty.**
1804. *March 26.* This portion included in District of Louisiana, which became Louisiana Territory (March 3, 1805) and Missouri Territory (June 4, 1812). Territorial government ends with admission of Missouri as a State (1821).
1806. Explorations by Pike.
1820. Explorations of Long.
Feb. 22. Treaty with Spain leaves region south and west of Arkansas River to Mexico (present Texas, New Mexico).
March 3. Slavery prohibited by Missouri Compromise.
1842. Explorations by Frémont.
1845. *March 1.* Southeastern portion annexed to the United States as part of claim of Texas.
1848. *Feb. 2.* Balance of region ceded by Mexico in Treaty of Guadalupe Hidalgo.
1850. *Sept. 9.* Texas transfers her claim to United States (see TEXAS, *Chronology*). Region west of Rocky Mountains included in Utah Territory and opened to slavery. Small southern portion included in New Mexico Territory.
1854. *May 30.* Portion east of Rocky Mountains and New Mexico Territory included in Kansas Territory (south of 40°) and Nebraska Territory. Open to slavery.
1858. **Gold discovered** at Cherry Creek.
1859. Pike's Peak gold rush.
Constitution for the "State of Jefferson" proposed.
1861. *Feb. 28.* **Colorado Territory organized.** Motto adopted: Nil Sine Numine.
1862. *June 19.* Territorial slavery abolished.
1864. *July 4–11.* **First constitutional convention.** People reject draft constitution September 13.
1865. *Aug. 8–12.* **Second constitutional convention.** People **ratify constitution** September 5. Bill to admit State under the constitution vetoed by President Johnson May 15, 1866.
1875. *Dec. 20.* **Third constitutional convention** meets. Adjourns March 14, 1876. **Constitution ratified** by people July 1, 1876.
1876. *Aug. 1.* **Admitted** to Union (38th State).
1877. **University of Colorado,** at Boulder, **opened.**
Silver-lead deposit discovered at Leadville.
1881. Ute Indians removed to Utah and southwestern Colorado.
Colorado Agricultural College, at Fort Collins, opened.
1891. **Gold rush** to Cripple Creek.
1893. Woman suffrage amendment is adopted.
Populist Party elects Davis H. Waite governor.
1909. *Sept. 22.* Gunnison irrigation tunnel dedicated by the U. S. Reclamation Service.
1912. Recall of judicial decisions adopted.
Merit system adopted in the State civil service.
1925. **Oil production** developed on major scale.
1928. Completion of **Moffat railroad tunnel** under James Peak, 32,150 ft. long and 9,100 altitude, opening territory beyond Continental Divide, and helping to shorten distance between Denver and Salt Lake City by 173 miles.
1932. Disputed boundary line between Colorado and New Mexico surveyed.

CONNECTICUT (5)

An original State of the Union

Historical Outline

CONNECTICUT has various nicknames: **"Nutmeg State," "Land of Steady Habits," "Blue Law State."** The river from which the State takes its name was discovered by Adrian Block in 1614, and a small trading post was soon established by the Dutch on the site of Hartford. Traders also came from Plymouth, Massachusetts. In 1635 the first permanent settlements were begun by colonists from Massachusetts, who founded the towns of Hartford, Windsor, and Wethersfield and in 1639 framed the **first popular constitution** made in America.

The colony of **New Haven** was founded in 1638 on a grant of Lord Saye and Sele by a group of wealthy settlers who desired to found a commonwealth after a Biblical pattern. In 1662 Charles II granted a charter to **John Winthrop** and his associates for the whole region occupied by both colonies, including the settlements already made. This charter was so liberal and allowed so much self-government that it was continued as the first State constitution until 1818. In 1686 Sir Edmund Andros became governor of all New England and took over the government of Connecticut, but failed to obtain the original **charter,** which, according to tradition, was hidden in an oak tree. (See CHARTER OAK, in *Dict.*)

During the Revolution, Connecticut suffered comparatively little, except in an attack on Groton; but

1919. Reorganization and centralization of the state administrative system.

1924. Annual lumber cutting in the State first exceeded one billion feet.

"Craters of the Moon" set aside as a national monument, containing 63 extinct craters.

1933. **Developed water power** aggregates more than 300,000 h.p., potential power being 4,000,000 h.p.

ILLINOIS (21)

Admitted to the Union, 1818

Historical Outline

Illinois is popularly known as the "**Prairie State**" and the "**Sucker State.**"

The first Europeans to set foot within the present limits of the State were the **French explorers** La Salle (1670) and Marquette and Joliet (1673), who reached the Illinois River and established trading posts as early as 1682. A few French inhabitants drifted in and lived in harmony with the Indians. For a long time the Illinois country was included in the Louisiana government. In 1763 this region was ceded by France to England and later claimed by Virginia by virtue of George Rogers Clark's expedition. This imperfect claim was yielded in 1784 by Virginia; and also the claims of Massachusetts and Connecticut by those States in 1785–86. In 1787 it became a part of the **Northwest Territory;** then of Indiana Territory; then was organized as the separate territory of Illinois in 1809, and finally was admitted as a State in 1818.

The State rapidly filled up and great enterprise was shown, but such heavy indebtedness was incurred for internal improvements that its credit was imperiled. In 1847 the people restored their credit by subjecting themselves to a heavy tax. The growth of the State was accelerated by the opening of the Erie Canal and the Great Lakes route and by the government grant of land for the Illinois Central Railroad in 1850, so that by 1870 the State ranked **first in railway mileage.**

In 1850 began the great German immigration, together with a small Irish element, and in the next ten years the population doubled. In the succeeding decade, in spite of the drain of the Civil War, it tripled. Chicago, the metropolis, a city of 30,000 in 1850 rose to over 300,000 in 1870. In 1871 the city was almost totally destroyed by fire, but rapidly recovered and is now the second city in the United States, with a population (1930) of 3,376,438.

The "Prairie State's" **great wealth** is still mainly in farms, the chief crops being corn, wheat, oats, and hay. It is also a great industrial State, ranking third in the value of its manufactured products, and leading in slaughtering and meat packing. Other important products besides meat are foundry and machine-shop products, clothing, iron and steel, and agricultural implements. Illinois ranks third after Pennsylvania and Ohio in mineral output, the chief products being coal, petroleum, natural gas, and zinc. On the Great Lakes a large fleet of steamers carries coal, ore, and cereals.

Education is free and compulsory for children between 7 and 14, and the school system is excellent. There are 6 public normal schools and more than 25 colleges and universities. **Higher educational institutions** of Illinois include the publicly controlled University of Illinois; and the privately controlled Armour Institute of Technology, Augustana College and Theological Seminary, Aurora College, Bethany Bible School, Bradley Polytechnic Institute, Carthage College, Chicago College of Osteopathy, Chicago-Kent College of Law, Chicago Law School, Chicago Lutheran Theological Seminary, Concordia Theological Seminary, De Paul University, Elmhurst College, Eureka College, Evangelical Theological Seminary, Garrett Biblical Institute, Greenville College, Illinois College, Illinois Wesleyan University, Illinois Woman's College, James Millikin University, John Marshall Law School, Teacher's College, Knox College, Lake Forest College, Lewis Institute, Loyola University, McKendree College, Meadville Theological School, Monmouth College, Mount Morris College, North Central College, Norwegian-Danish Theological Seminary, Northwestern University, Presbyterian Theological Seminary, Rockford College, Rosary College, St. Francis Xavier College for Women, St. Mary of the Lake Seminary, St. Procopius, St. Viator, Shurtleff College, University of Chicago, Wheaton College.

The **constitution** adopted in 1870 (a constitutional convention sat in 1920) provides for a legislature meeting biennially, consisting of a Senate of 51 chosen for four years from districts based on population, and a House of Representatives containing three representatives from each Senatorial district. For representatives each elector has three votes, which he may cast for three candidates or divide as he wishes.

Illinois is a **doubtful State politically** and has alternated between the Democratic and Republican parties in recent presidential elections. In State politics it has also frequently changed parties. It was the home of two presidents, **Abraham Lincoln** and **Ulysses S. Grant,** and of many **other national figures,** including Stephen A. Douglas.

Chronology

1609. *May 23.* Illinois region included in second charter of Virginia.

1629. *March 4.* Small portion of region included in charter of Massachusetts.

1662. *April 20.* Small portion of region included in charter of Connecticut.

1673. Louis **Joliet** and Jacques **Marquette explore** the **Illinois country.**

1763. *Feb. 10.* French claim ceded to Great Britain.

1783. *Sept. 3.* **Illinois** region **becomes part of United States** by Treaty of Paris.

First school taught at New Design by Samuel J. Seeley.

1784. *March 1.* Virginia claim relinquished.

1785. *April 19.* Massachusetts claim relinquished.

1786. *Sept. 14.* Connecticut claim relinquished.

1787. *July 13.* Territory northwest of the Ohio organized. Slavery prohibited.

1793. Methodist church founded at Shilo.

1800. *May 7.* Included in Indiana Territory.

1809. *Feb. 3.* **Illinois Territory organized.**

1816. Bank of Illinois the first corporation chartered.

1818. *Aug. 1–26.* **First constitutional convention.** Constitution not submitted to people.

Aug. 26. State motto adopted: "State Sovereignty — National Union."

Dec. 3. Admitted to the Union (21st State).

1824. First general corporation act approved.

1832. Settlers with Abraham Lincoln, Captain, win Black Hawk war, thereby ending Indian menace.

1847. *June 7–Aug. 31.* **Second constitutional convention.**

1848. *March 6.* New **constitution ratified** by people.

1861. *March 4–April 15, 1865.* Abraham **Lincoln** of Illinois is **sixteenth president** of the United States.

1862. **Third constitutional convention** meets. Resultant **constitution rejected** by popular vote.

1867. University of Illinois incorporated as Illinois Industrial University.

1869. *December 13.* **Fourth constitutional convention** meets. Adjourns May 13, 1870. New **constitution, ratified** by people, in force August 8, 1870.

1869–77. General Ulysses S. **Grant** of Illinois is **eighteenth president** of the United States.

1873. Farmers convene at Bloomington for political action and organize the antimonopoly movement to restrain corporate interests.

1880. Number of tenant farmers largest of any State in the Union — 80,000.

1888. Melville W. Fuller of Illinois becomes Chief Justice of the United States.

1889. Compulsory education act passed.

1891. Australian ballot system adopted for all elections.

1893. **World's Columbian Exposition** at Chicago.

1894. Pullman and railroad strikes in Chicago.

1900. Chicago Drainage Canal opened.

1903–10. Joseph Gurney Cannon of Illinois is Speaker of the National House of Representatives.

1905. Merit system adopted in the State civil service, extended in 1911.

1911. First American state-wide mothers' pension law enacted; similar provisions adopted in forty-five States by 1934.

1917. Civil Administrative Code becomes effective, making Illinois a leader in governmental economy and efficiency.

1918. Bond issue of $60,000,000 voted for highways.

1920. *Jan. 6.* **Fifth constitutional convention** meets. Adjourns in October 1922. Work rejected by popular vote December 12, 1922.

1921. Bond issue of $55,000,000 voted for World War Veterans.

1930. Negro population doubled within the decade. Oscar de Priest, negro, elected representative in Congress.

1931. **Great Lakes traffic** at Chicago exceeds six million long tons.

1933. First standard tow of barges from New Orleans arrived at Chicago, overcoming 129 foot elevation at divide by aid of new waterway construction costing $100,000,000. Henry T. Rainey of Illinois is Speaker of the National House of Representatives.

1933–34. **Century of Progress Exposition** at Chicago.

INDIANA (19)

Admitted to the Union, 1816

Historical Outline

Indiana, the "**Hoosier State,**" a part of the Northwest Territory, received separate territorial organization in 1800, under Governor William Henry **Harrison.** Security from the Indians was obtained by the victory of Harrison over Tecumseh at the battle of Tippecanoe in 1811.

Indiana was admitted as a State in 1816. The present **constitution** was adopted in 1851, and since it requires for amendment a majority of the members of each of the two houses in two successive sessions and a majority of all the votes cast at the elections, and since only one amendment shall be put before the people at one time, it has proved impossible of direct amendment. This constitution provides for a governor elected for four years, a Senate of fifty chosen for four years and a House of Representatives of 100 chosen for two years. Enumerations and apportionments are made every six years.

Politically Indiana is a **doubtful** State, both in State and national politics. It has given to the nation one President, Benjamin Harrison, and Vice-Presidents Colfax, Hendricks, Fairbanks, and Marshall.

The **educational standards** of Indiana are high, and the illiteracy rate extremely low. Education is compulsory between the ages of 6 and 14. **Higher educational institutions** of Indiana include the publicly controlled Indiana University, Purdue University; and the privately controlled Butler University, De Pauw University, Earlham College, Evansville, Franklin, Goshen, Hanover, Huntington College, Manchester, Marion, Oakland City College, Rose Polytechnic Institute, St. Mary's College, St. Mary-of-the-Woods College, St. Meinrad Seminary, Taylor University, University of Notre Dame, Valparaiso University, Wabash College, and the Vincennes University, founded in 1806, which has become a junior college.

Indiana has been the home of many **noted writers,** among whom may be mentioned Lew Wallace, James Whitcomb Riley, Eugene Field, Edward Eggleston, and Booth Tarkington.

The State is **largely agricultural,** 94% of the territory being in farms. The important crops are corn, wheat, hay, oats, and potatoes. The principal manufactured products are flour and grist, meat products, foundry and machine-shop goods, iron and steel products, and automobiles.

Chronology

1609. *May 23.* Second charter of Virginia includes region.

1662. *April 20.* Charter of Connecticut includes portion of region.

1727. French **settlement** begins at Vincennes.

1763. *Feb. 10.* French claim ceded to Great Britain.

1783. *Sept. 3.* Region becomes **part of United States** by Treaty of Paris.

1784. *March 1.* **Virginia claim** relinquished.

1786. *Sept. 14.* Connecticut claim relinquished.

1787. *July 13.* Ordinance for Territory Northwest of the Ohio. **Slavery prohibited.**

1800. *May 7.* **Indiana Territory** organized.

1813. *May 1.* Corydon becomes the State Capital in place of Vincennes.

1816. *June 10–29.* **First constitutional convention.** Constitution not submitted to people.

Dec. 11. **Admitted to Union** (19th State).

1824. Indiana Seminary opened, later Indiana University.

1825. *Jan. 10.* Indianapolis becomes the State Capital in place of Corydon.

1845–47. John W. Davis of Indiana is Speaker of the National House of Representatives.

1850. *Oct. 7.* **Second constitutional convention** meets. Adjourns February 10, 1851. New **constitution, ratified** by people, in force November 1, 1851.

1852. School law establishes free public library in every township.

1863–69. Schuyler Colfax of Indiana is Speaker of the National House of Representatives.

1875–76. Michael C. Kerr of Indiana is Speaker of the National House of Representatives.

1889–93. Benjamin **Harrison** of Indiana is **twenty-third president** of the United States.

1911. *March 4.* Legislature frames a new constitution and submits it to people. Declared unconstitutional by State Supreme Court, July 5, 1912.

1914. *Nov. 3.* People reject calling of a constitutional convention.

1917. *Feb. 1.* Act for election of delegates to a constitutional convention. Declared null by State Supreme Court, July 13.

1930. *November.* Proposal for a constitutional convention rejected by the people.

1931. Legislature designed the zinnia as the State flower and the tulip-tree as the State tree.

1933. Legislature gives **governor dictatorial powers for reorganizing** the **State administration.**

IOWA (29)

Admitted to the Union, 1846

Historical Outline

Iowa takes its name from an Indian tribal name (said to mean "Sleepy Ones"). It is often called by the nickname of the "**Hawkeye State.**" It was a part of the Louisiana Purchase of 1803. The **first settler** was probably Julien Dubuque, in 1788, but permanent occupation did not begin until 1830. In 1833 the Iowa country was opened up by the Black Hawk Purchase and settlers came from all parts of the Union. For a time part of Missouri Territory, Iowa was organized as a separate territory in 1838 and admitted to the Union in 1846.

EXAMPLES OF MUNICIPAL BUILDINGS

1. NEW YORK, N. Y.
2. SAN FRANCISCO, CALIF.
3. CLEVELAND, OHIO
4. PHILADELPHIA, PA.
5. ATLANTA, GA.
6. BUFFALO, N. Y.
7. LOS ANGELES, CALIF.
8. DENVER, COLO.
9. SPRINGFIELD, MASS.

and legislative district, of which there are four for the city of Baltimore alone, has one Senator; while the House of Delegates is chosen by counties according to population. The governor is elected for four years and has wide appointing power.

Higher educational institutions of Maryland include the publicly controlled United States Naval Academy, University of Maryland; and the privately controlled College of Notre Dame of Maryland, Goucher, Hood, Johns Hopkins University, Loyola, Maryland College for Women, Mount St. Mary's St. John's, St. Joseph's, Washington, Western Maryland, Westminster Theological Seminary, Woodstock, Morgen College for Negroes.

Agriculture is important, the principal crops being corn, wheat, hay, potatoes, and tobacco. In industry the output of **men's clothing** is more than three times as great as any other product. Next in succession are tinware, copper and sheet tin, tobacco manufactures, foundry and machine work. The oyster fisheries of the State are more important than those of any other State. It has also valuable coal deposits.

Chronology

1632. *June 20.* Royal **proprietary charter** to Maryland granted to George Calvert (Lord Baltimore).

1634. *March 27.* **Settlement begins** at Saint Marys.

1648. *Aug. 12.* Motto adopted: Fatti Maschii Parole Femine. Scuto Bonae Voluntatis Tuae Coronasti nos.

1649. Act for toleration of religions.

1681. Controversy with Pennsylvania over boundaries begins; covers three quarters of a century.

1689. Royal provincial government supersedes proprietary government.

1715. Proprietary restored.

1761. Robert Strawbridge conducts in Carroll County the first Methodist service in America, the church being formerly organized in Baltimore in 1784, electing Bishop Asbury and Coke.

1774. *Sept. 5.* **Maryland** represented **in** the **First Continental Congress** by Samuel Chase, Robert Goldsborough, Thomas Johnson, William Paca, Matthew Tilghman.

1776. *Aug. 14–Nov. 11.* **First constitutional convention.** Constitution not submitted to the people.

1784. Cokesbury College, the first Methodist College in the world, opens at Abingdon.

1786. Rev. **John Carroll** appointed by the Pope to be Apostolic Vicar, later becoming the **first archbishop of the United States.**

1787. *Sept. 17.* Maryland participates in the Federal Constitutional Convention, represented by James McHenry, Daniel Carroll, Daniel Jenifer.

1788. *April 28.* Federal Constitution ratified.

1791. Maryland cedes 61 square miles to the Federal Government for the seat of Government — District of Columbia.

1804. **Coal is discovered** near Frostburg, causing later the construction of the Chesapeake and Ohio Canal, and the Baltimore and Ohio Railroad.

1810. Property requirements for electors are abolished.

1826. **Chesapeake and Ohio Canal** begun.

1827. Chrome deposits discovered near Baltimore.

1828. *July 4.* Charles Carroll of Carrollton lays the cornerstone of the **Baltimore and Ohio Railroad** — the oldest railroad on the Continent.

1836. Roger B. Taney becomes Chief Justice of the United States.

1844. **Telegraph line** constructed **between Baltimore and Washington,** the first in the world.

1845. George Bancroft founds the **United States Naval Academy** at Annapolis.

1850. *Nov. 4.* **Second constitutional convention meets.** Adjourns May 13, 1851. New **constitution, ratified** by people, in force July 4, 1851.

1860. Horse cars introduced in Baltimore.

1864. **Third constitutional convention.** New **constitution,** which abolishes slavery, **ratified** by the people, and in force November 1.

1867. *May 8–Aug. 17.* **Fourth constitutional convention.** New **constitution, ratified** by people, in force Oct. 5.

1876. **Johns Hopkins University** begins operation as a graduate school.

1885. Electric railway constructed in Baltimore.

1887. Steel works begun at Sparrow's Point.

1891. Bessemer steel is produced in Maryland for the first time.

1920. The old University of Maryland (1807) consolidates with Maryland State College of Agriculture.

Merit system of civil service adopted.

1922. Constitutional amendment ratified providing for election of all State and County officials, save judges, quadrennially, as a means of reducing election costs.

State administration reorganized.

1931. Enactment of legislation concerning old age pensions, mother's pensions, juvenile courts, billboards, taxicabs, and aeronautics.

1932. Governor Albert C. Ritchie completes twelfth year of continuous service as governor.

1933. Whipping post resumed after abandonment for forty years.

MASSACHUSETTS (6)

An original State of the Union

Historical Outline

Massachusetts, the **"Bay State"** or **"Old Bay State,"** was visited possibly by Northmen and certainly by Verrazano. Capt. John Smith gave it the general name of New England.

The first settlement to be made within the limits of Massachusetts was made by Bartholomew Gosnold in 1602 on one of the Elizabeth Islands. The **first important colony** was settled by the **Pilgrims** (1620), a little band of religious exiles, who planted and successfully maintained the colony of Plymouth until, after two generations, it was absorbed in the larger province of Massachusetts Bay. This later settlement owed its foundation to the Massachusetts Bay Company, under the control of John Winthrop and his associates, who were Puritans in religion, but people of wealth and importance. The "great emigration," as their coming was called, began in 1629 and continued for about ten years, at the end of which period Massachusetts approached Virginia in population.

From 1629 until 1684 the government of the colony was vested in the Governor, Assistants, and Freemen of the **Massachusetts Bay Company;** and the right to vote and take part in the government of the colony was acquired only by admission into the company of members of the **Congregational Church.** Hence the early settlers and their descendants were able to retain their influence and perpetuate the Puritan doctrines of church and state. Not until after the King Philip War (1675) was the colony freed from danger of extinction. By 1675, Massachusetts had become the most populous member of the New England confederation.

In 1684, after a long struggle, the **charter** of the company was vacated by legal proceedings in England, and Massachusetts and the other New England colonies were for a short time united under the rule of Sir Edmund Andros, a governor appointed by the crown. Massachusetts openly rebelled against the tyranny of Andros.

After the fall of the Stuarts in England, Massachusetts received the second or provincial **charter** (1691), under which it was governed until the Revolution. The right to vote was based on a property qualification, with no restriction as to religious belief. The governor was appointed by the crown; the House of Representatives was elected by the people, according to towns; and the **General Court** — as the legislature was, and is still, called — chose the upper house, or Council. Thus the colonists of Massachusetts were able to exercise more influence, and more frequently to obtain their desires, than those of the other royal provinces. The colonists early developed great political capacity and learned the art of self-government and self-protection.

During the colonial period, Massachusetts suffered from **wars,** the French and Indian wars of the early eighteenth century. Frequent raids were made overland from Canada; and counter expeditions were fitted out by the colony with the aid of England against Montreal and the French possessions in Nova Scotia. Port Royal (Annapolis) was captured in 1690, but returned by the Treaty of Ryswick (Rijswijk).

The large commerce of Massachusetts and the independent and self-reliant spirit which developed in the colony marked it out for discipline by the king. **Troops were sent to Boston** in 1768. The street fight between soldiers and civilians in 1770 and the Boston Tea Party of 1773 brought down the wrath of the British government. In 1774 Acts of Parliament closed the port of Boston to commerce, and the charter was altered to secure the appointment of the Council and judges. General Gage was appointed governor as well as commander in chief. The inevitable clash between the people and the royal troops came in April, 1775, at Lexington and Concord. The **British were forced to evacuate Boston** the next year, and from that time Massachusetts was free from serious invasion.

In 1780 the first State **constitution,** framed by a special convention and then submitted to popular vote, was provided for Massachusetts. The constitution has been frequently amended and was altered and rearranged by a constitutional convention of 1917–19. Massachusetts has always been a forward State in legislation and now has a responsive governmental system with the popular initiative and referendum.

During the "Critical Period" of the Confederation, Massachusetts was in bad condition. Trade suffered grievously, the treasury was empty, taxes were high, and the debtor class was demanding paper money for relief. In 1786–87 occurred an armed uprising, known from the name of its leader as **Shays' Rebellion.** Such disturbances made the conservatives and merchants anxious to adopt the Federal **Constitution** of 1787; but the Antifederalists were strong enough to prevent ratification unless the amendments they proposed were added with an urgent recommendation. This proved a happy expedient and was followed by other pivotal States, and thus made ultimate ratification possible.

In national **politics** Massachusetts voted for Jefferson in 1804, Monroe in 1820, Wilson in 1912, and Roosevelt in 1932; in all other presidential elections it has supported the candidates of the Federalist, Whig, or Republican parties. In State elections until 1910 it was generally Republican, but since that time it may be classed as a doubtful State. Among the **great men** of Massachusetts have been James Otis, Samuel Adams, President John Adams, his son, President John Quincy Adams, and Daniel Webster.

The State has been the birthplace or abiding place of many men and women of letters — Emerson, Hawthorne, Lowell, Longfellow, Bancroft, Whittier, and others.

The leadership of Massachusetts in the science of state government has been summed up as follows by a professor in Massachusetts State College: "Massachusetts is politically individualistic in three major particulars. It, like Rhode Island and New Hampshire, believes in an appointive judiciary, serving during 'good behavior.' It adheres to a 'pay as you go' policy and is reluctant to incur bonded indebtedness. And it deliberately prefers the 'town' system for local government, in this regard also sharing the distinction with its neighbors, Rhode Island and New Hampshire. In the face of growing numbers the State disbelieves in multiplying its cities unless compelled so to do by reason of heterogeneous population; it indulges in conservative modification of the town system, and has twenty of the largest towns organized with 'limited' or 'representative' town meetings, and four others maintaining 'town managers.' The State also believes in separating the legislative power from the confirming function, and vests the latter in an 'executive council' instead of in the Senate; there are only three other States sharing this view."

In education Massachusetts was a pioneer in the establishment of both common **schools and colleges.** In 1635 free schools were established; in 1636 **Harvard College** was founded; in 1647 every town having fifty families was obliged to have a free school. Its present school system is based upon the town or city as the unit, although the State Board of Education has supervisory powers and grants aid from the State school fund to small towns. A system of vocational schools as well as high schools is established. **Higher educational institutions** of Massachusetts include the publicly controlled Lowell Textile Institute, Massachusetts State College; and the privately controlled Amherst College, Boston College, Boston University, Clark University, Emmanuel College, Episcopal Theological School, Gordon College of Theology and Missions, Harvard University, Holy Cross, International Y.M.C.A. College, Massachusetts Institute of Technology, Mount Holyoke College, New Church Theological School, Newton Theological Institution, Northeastern University, Portia Law School, Radcliffe College, St. John's Boston Ecclesiastical Seminary, Simmons College, Smith, Suffolk Law School, Tufts College, Wellesley, Wheaton, Williams College, Worcester Polytechnic Institute.

Massachusetts is the **second State in density of population:** nearly 80 per cent of its population lives in 36 cities, mostly grouped about Boston. These cities are the centers of most varied manufacturing establishments, and Massachusetts ranks **fourth in the value of its manufactured products.** In the production of boots, shoes, and cotton goods it exceeds any other State. Other important products are foundry and machine-shop products, electrical machinery, paper, and wood pulp. The investment in **fisheries** exceeds that of any other State; and from colonial times the cod, haddock, and mackerel fisheries have been important. The chief mineral products are granite and trap rock. Agriculture is relatively unimportant, hay and forage producing a third of the value and vegetables one quarter.

Chronology

1620. *November.* **Mayflower compact** (agreement of Pilgrims signed on board Mayflower by 41 persons, Nov. 11 (21 N.S.) to act together as a community.

December. First settlement at New Plymouth. **Plymouth Colony founded.**

1629. *March 4.* **Royal charter** for Massachusetts Bay Company; boundaries extend to the Pacific.

1630. Colony organized in new settlement. **"General Court"** of the Company soon **becomes a representative legislature.**

1639. First printing in the American colonies done in Cambridge.

1643. Manufacture of woolen goods attempted at Rowley.

May 19. **New England Confederation formed.** Lasts 41 years.

1654. Refusal of Massachusetts to be bound by a vote of the Confederation.

1684. *Oct. 23.* **Charter annulled.**
1685. Included in Dominion of New England.
1691. *Oct. 7.* **Second royal charter,** including Plymouth and Maine.
1774. *May 20.* Act of Parliament virtually abrogates charter.
Sept. 5. **Massachusetts** represented **in** the **First Constitutional Congress** by John Adams, Samuel Adams, Thomas Cushing, Robert Treat Paine.
1775. *July 28.* Government resumed by action of General Court, nominally under charter, actually as a revolutionary body.
1777. *June 17.* General Court sits as a constitutional convention; February 28, 1778, submits draft to people, who reject it.
1779. *Sept. 1.* **Constitutional convention** meets. Adjourns September 7, 1780, submitting its work to the people who ratify it. First case in history of **constitution** framed by a body chosen solely for the purpose, and **ratified** by popular vote.
1780. *Dec. 13.* Motto adopted: Ense Petit Placidam sub Libertate Quietem.
1785. *April 19.* Western claims relinquished to the United States.
1786. Claims to western New York relinquished; title retained.
1787. *Sept. 17.* **Massachusetts** participates **in the Federal Constitutional Convention,** represented by Nathaniel Gorham and Rufus King who signed the Constitution.
1788. *Feb. 6.* Federal Constitution ratified.
First Cotton mill in America constructed at Beverly.
1797-1801. John **Adams** of Massachusetts elected **second president** of the United States.
1799. Theodore Sedgwick becomes speaker of the National House of Representatives.
1807. Joseph B. Varnum of Massachusetts becomes Speaker of the National House of Representatives.
1810. Elkanah Watson organizes a cattle fair at Pittsfield out of which evolved the Berkshire Agricultural Society — the first permanent American Agricultural Fair Association.
1814. **Power loom,** which revolutionized the American cotton industry, begins operation in Waltham, having been constructed by Francis C. Lowell and Paul Moody.
1815. Cotton mills in State number fifty-seven.
1820. Maine, a part of Massachusetts, set up as a separate state.
Nov. 15. **Second constitutional convention.** Adjourns January 9, 1821. Amendments submitted, adopted by people.
1825-29. **John Quincy Adams** of Massachusetts is **sixth president** of the United States.
1833. American manufacture of rubber goods originates at Roxbury.
1847. Robert C. Winthrop of Massachusetts becomes speaker of the National House of Representatives.
1851. T. V. Sullivan, a sea captain, forms in Boston the **first Y.M.C.A. in the United States.**
1853. *May 4–Aug. 1.* **Third constitutional convention.** Amendments rejected by people.
1856. Nathaniel P. Banks of Massachusetts becomes Speaker of the National House of Representatives.
1870. Industrial drawing introduced into Massachusetts public elementary schools preparing the way for manual training.
1884. Merit system adopted in the State civil service.
1897. First subway in the United States runs in Boston.
1912. Massachusetts enacts the **first state minimum wage law** in the United States, applicable to children and women.
1917. *June 6.* **Fourth constitutional convention** assembles. Final adjournment August 13, 1919. **Amendments** submitted, **adopted** by people: constitution rearranged.
1919. Frederick H Gillett of Massachusetts is Speaker of the National House of Representatives.
1922. State Commission of Administration and Finance is created providing for budget, purchasing and comptrollers bureau. Banking laws revised to remedy defects revealed by Ponzi scandal of 1920.
1923. *Aug. 2–March 4, 1929.* Former vice-president Calvin **Coolidge** of Massachusetts **is thirtieth president** of United States.
1925. Boston and Maine Railroad reorganized. Total mileage of steam and electric railroads exceeds four thousand miles.
1926. Circulation of books for home use by public libraries exceeds 14,000,000 volumes.
1931. State redistricted into 15 Congressional districts in place of the preceding 16 in order to conform to the new federal reapportionment.
Bank closings tied up about $80,000,000 of deposits.
1932. The "Lame Duck" amendment to the constitution of the United States is ratified by the General Court and by popular vote in a referendum.

MICHIGAN (26)

Admitted to the Union, 1837

Historical Outline

Michigan is popularly known as the "**Wolverine State**" and also, sometimes, as the "**Lake State.**"

The shores of Lake Michigan were partly explored by French traders and missionaries between 1634 and 1640, and the **first settlement** was made by Marquette at Sault Sainte Marie in 1668. In 1701 a military post was planted at Detroit by Cadillac which in 1760, during the French and Indian War, fell into the hands of the English. By the Treaty of 1763 the English were given possession of all this region, but they had to fight for it with Pontiac, an Indian chief.

By the Treaty of 1783 the country was acknowledged a part of the United States and was included later in the Northwest Territory. In 1805 Michigan was erected into a separate territory and became a State (1837) after a sharp dispute with Ohio concerning the boundary. The Upper Peninsula was added by Congress as a mollifier.

The present **constitution,** adopted in 1908, provides for a Senate of 32 and a House of Representatives of not fewer than 64 nor more than 100, elected for two years on the basis of decennial apportionments of the population. The governor is also chosen for two years. Both amendments to the constitution and laws may be made and proposed by the **initiative;** and all elected officers except judges are subject to **recall.**

Since the organization of the Republican party the State usually has been Republican, except in 1892 when five of its electors were Democratic; and in 1912 when it followed the Progressive party. In 1932 it supported Roosevelt. Nearly all United States senators and a majority of members of Congress have been Republican. In State politics the governors have been Republican since 1866 except in 1883, 1891, 1913, and 1915. The most renowned Michigan statesman was **Lewis Cass.**

Michigan is one of the foremost States in **education** and has an excellent system of schools, with compulsory attendance for children from 7 to 16. The State also has six normal schools. **Higher educational institutions** of Michigan include the publicly controlled College of the City of Detroit, Michigan College of Mining and Technology, Michigan State College of Agriculture and Applied Science, University of Michigan; and the privately controlled Adrian College, Albion, Alma, Battle Creek College, Bible Holiness Seminary, Calvin College and Seminary, Detroit College of Law, Emmanuel Missionary College, Hillsdale, Hope, Kalamazoo, Marygrove, Nazareth, Olivet College, University of Detroit.

The State is **largely agricultural;** the chief crops being oats, corn, wheat, hay, potatoes, and sugar beets. Michigan ranks sixth in the production of **mineral wealth;** the chief products being iron, copper, and coal. The industries of the State are chiefly connected with lumber and automobiles; of the latter Michigan produces about three fourths of the entire output in the United States. Other important industries are foundry and machine work, flour and gristmilling, furniture manufacture, copper smelting, and the production of beet sugar.

Chronology

1609. *May 23.* Region included in second charter of Virginia.
1629. *March 4.* Portion of region **included** in charter of Massachusetts.
1634. Jean Nicolet lands at Green Bay.
1662. *April 20.* Small portion of region included in charter of Connecticut.
1668. Marquette makes first settlement at Sault Ste. Marie.
1701. French **settlement** begins at Detroit. Missions and forts at Sault Sainte Marie and Michilimackinac earlier.
1763. *Feb. 10.* French claim ceded to England.
1783. *Sept. 3.* Becomes **part of United States** by Treaty of Paris.
1784. *March 1.* Virginia claim relinquished.
1785. *April 19.* Massachusetts claim relinquished.
1786. *Sept. 14.* Connecticut claim relinquished.
1787. *July 13.* Territory Northwest of the Ohio organized. **Slavery prohibited.**
1800. *May 7.* Western portion included in Indiana Territory.
1805. *Jan. 11.* **Michigan Territory** organized over eastern portion.
1809. *Feb. 3.* Western portion divided between Indiana and Illinois territories.
1817. University of Michigan founded.
1818. *April 18.* Balance of region added to Michigan Territory.
1835. *May 11–June 20.* **First constitutional convention. Constitution ratified** by people Nov. 2.
Motto adopted: Si Quaeris Peninsulam Amoenam Circumspice.
1836. **First railroad** in Michigan is **completed.**
1837. *Jan. 26.* Admitted to the Union (26th State). University of Michigan at Ann Arbor opened.
1841. The "Copper Country" made known.
1844. **Iron ore** in Marquette County **discovered.**
1847. Lansing becomes State Capital in place of Detroit.
1850. *June 3–Aug. 15.* **Second constitutional convention.** New **constitution, ratified** by people, in force January 1, 1851.
1852. Michigan Central Railroad completed as far as Chicago.
1859. Salt of commercial value discovered in Saginaw region.
1874. Michigan Pioneer and Historical Society is organized.
1886. Michigan College of Mines at Houghton is opened.
1903. **Ford Motor Company** is organized, followed by Michigan's pre-eminence in the manufacture of automobiles.
1907. *Oct. 22.* **Third constitutional convention** meets. Adjourns March 3, 1908. New **constitution, ratified** by people, in force January 1, 1909.
1917. Michigan War Preparedness Board, first of its kind in the United States, is organized.
1921. State Administrative Board is organized.
1929. Sterilization of feeble-minded persons made mandatory by law on court order.
1930. United States census shows Detroit to rank fourth in population with 1,568,662.
1931. State reforestation agency planted several millions of trees. Isle Royale National Park, about 225 square miles, provided for by Congress. State referendum vote refused resumption of capital punishment potentialities as abandoned in 1846.
1932. State Alien registration law held unconstitutional by Federal judges.
1933. *Feb. 14.* Bank holiday proclaimed by the governor throughout the State because of a crisis precipitated by general conditions and esp. by the strain on a group of banks in Detroit.
October. Commonwealth Party is organized in convention at Lapeer.
Success of "Council Manager" plan of city government during preceding two decades receives wide recognition.

MINNESOTA (32)

Admitted to the Union, 1858

Historical Outline

Minnesota is generally known by the nickname of "**Gopher State,**" although it is also sometimes called the "**New England of the West**" and the "**Northern-Star State.**"

The region of Minnesota, or "Cloudy Water," was first visited by La Salle and Hennepin in 1680. The State lies on both sides of the Mississippi and its territory lay partly in the old Northwest Territory and partly in the Louisiana Purchase. It was organized as a territory in 1849 and admitted as a State in 1858. In 1862 the State suffered severely from a rising of the Sioux Indians, when over 700 settlers were massacred.

The present **constitution** was adopted in 1858 and has been frequently amended. Since 1898 amendments have been difficult, since the process requires a majority of all those voting at the election. The constitution provides for a governor elected for two years, whose executive power is shared with a large number of officials and commissioners; a legislature consisting of a Senate of 67 chosen for four years from senatorial districts and a House of Representatives of 130 members chosen biennially from the same districts in proportion to the population. Minnesota was the first State in the United States to adopt a compulsory **primary election law** applicable to the whole State.

Politically Minnesota has been Republican with pronounced Independent tendencies, although the Democrats have occasionally elected the governor. In national elections it usually has been Republican since its admission to the Union. Among its **public men** have been Secretary of the Treasury William Windom and Senator Knute Nelson.

The State has a good **public school system,** both elementary and high, and 6 public normal schools. **Higher educational institutions** of Minnesota include the publicly controlled University of Minnesota; and the privately controlled Augsburg Seminary, Bethel Institute, Carleton College, College of St. Scholastica, College of St. Paul, Concordia College, Gustavus Adolphus College, Hamline University, Luther Theological Seminary, Macalester College, Minnesota College of Law, St. John's University, St. Mary's College, St. Olaf College, St. Paul College of Law, St. Paul Seminary, Seabury Divinity School.

Minnesota is **chiefly an agricultural** State, the main crops being oats, corn, and wheat. Live stock raising is important and the wool clip is nearly three million pounds. It contains immensely **valuable iron mines,** chiefly red hematite in the Mesabu and Vermilion ranges. The most important manufactured product is flour. Minneapolis is one of the most important centers of the **grain trade,** and Duluth is an important port.

EXAMPLES OF STATE CAPITOLS

1. RICHMOND, VIRGINIA
2. MADISON, WISCONSIN
3. BOSTON, MASSACHUSETTS
4. ALBANY, NEW YORK
5. MONTPELIER, VERMONT
6. COLUMBUS, OHIO
7. BATON ROUGE, LOUISIANA
8. LINCOLN, NEBRASKA

TERRITORIES AND DEPENDENCIES OF THE UNITED STATES

ALASKA

Historical Outline

Alaska is a vast tract 590,884 square miles in extent — greater than the area of the original thirteen States — which was acquired from Russia by the United States in 1867.

The first Europeans to see the wild coast were early Spanish voyagers; the first recorded voyage was Drake's in 1580. Cook and other explorers skirted it from 1778 to 1800. The first Russian discoveries were made by Bering in 1741.

The Russian-American Fur Company had a monopoly of Alaskan trade, and in 1821 Russia claimed ownership south to 51° and also sole privilege on the North Pacific Ocean. In 1824 Russia by treaty with the United States withdrew all claims south of 54° 40′. In 1867 the United States **purchased** the whole enormous area **from Russia** for $7,200,000. The Canadian Northwest thus became the eastern neighbor of Alaska; the boundary was left unsettled till the arbitration of 1903, under which the Canadians remained shut off from the coast north of 54° 40′.

Alaska is separated from the rest of the United States by British Columbia. Including the islands and its deeply indented shores, the **coast line** of Alaska is 20,000 miles. The great coast range of mountains is from 50 to 75 miles in width, and includes **Mount McKinley**, 20,300 feet in height, the loftiest peak on the continent of North America.

The interior contains some grassy plains and groves of pines on the mountains. The **Yukon Piver,** which rises in British Columbia and flows through Alaska into the Pacific, is one of the great streams of the world, being navigable by steamers for 2,000 miles. The **climate** of the coast and Pacific islands is moderated by the warm Japan Current, which produces an immense rainfall. East of the coast range the winter cold is intense, the thermometer sometimes falling to 70° below zero.

By act of Congress in 1912 Alaska became an **organized territory,** with a legislative assembly. In 1927 Congress authorized the appointment of three ex-officio Commissioners who exercise extensive powers.

Religious **missions** represent almost all denominations of the Protestant, Russian, and Roman Catholic churches. The territory is well supplied with **schools. Higher educational institutions** include the publicly controlled Alaska Agricultural College and School of Mines. The great problem of Alaska is transportation, and in 1914 Congress passed an act authorizing the president to construct and operate a railroad from the coast to the **coal deposits,** which are considered valuable for naval purposes. Traffic is suspended in the winter. Alaska is **rich in gold** deposits in the interior on the Yukon River and at Cape Nome. Other important industries are the **seal and salmon fisheries.**

Chronology

1741. Discovery by Russia.
1784. Beginning of **Russian settlement,** following years of trade on the coast.
Area reached by American trading vessels.
1824. *April 17.* Russo-American treaty delimiting Alaska. Similar Russo-British treaty, February 28, 1825.
1867. *March 30.* **Purchase by United States.**
1884. *May 17.* First organic act; governor, courts, and commissioners.
1893. *Aug. 15.* Fur-Seal Arbitration with Great Britain.
1899. *March 3.* Criminal code enacted.
1900. *June 6.* Civil code and district government acts.
1903. *Oct. 20.* Settlement of Alaska-Canadian boundary dispute.
Homesteading legally permitted.
1906. *May 7.* Granted a delegate to Congress.
1912. *Aug. 24.* **Alaska Territory** organized.
1914. *March 12.* Act for government railroad.
1922. Alaska Agricultural College and School of mines organized.
1932. Uncharted bay discovered near Afognak by Coast and Geodetic Survey.

CORN ISLANDS

Great and Little Corn Islands, off the Atlantic coast of Nicaragua, were ceded to the United States by treaty ratified by U. S. Senate Feb. 18, 1916. By this convention, Nicaragua grants to United States privileges of canal construction, and cedes Little Corn and Great Corn Islands; also, the right to establish and maintain a naval base in the Gulf of Fonseca. Practically excludes other nations from constructing a canal across Nicaragua.

DISTRICT OF COLUMBIA

A district ten miles square, obtained by cessions of jurisdiction by Maryland and Virginia in 1788 and 1789, was set apart by Act of Congress in 1790 for the seat of government of the United States. Commissioners were appointed by President Washington in 1791 to lay out the District, and to secure a proper title to the soil. Major L'Enfant, a French engineer, planned the city of Washington; and the buildings necessary for the accommodation of Congress and the President were erected before December, 1800. The city suffered loss from the occupation and burning by the British in 1814. In 1846 the Virginia portion of the District was retroceded to that State. For many years after its establishment, the only local government was that of the municipalities of Georgetown and Washington. The question of slavery and the slave trade in the District caused violent controversies down to the act prohibiting the trade in 1850; and the act for compensated emancipation in 1862. In 1871 a **territorial government** was established, followed in 1874 by a government by a Commission appointed by the president, which is still in effect. **Higher educational institutions** of the District of Columbia include the publicly controlled Gallaudet College and Howard University; and the privately controlled American University, Catholic University of America, Georgetown, George Washington University, National University, Trinity College, Washington College of Law, Washington Missionary College.

Chronology

1790. *July 16.* **Establishment** as seat of Federal government authorized by Congress.
1800. *Nov. 1.* President takes up his residence.
1801. *Feb. 27.* Act for District **government.**
1802. *May 3.* Act for **incorporation of Washington.**
1827–1837. Controversy in Congress over petitions for prohibition of slavery in the District of Columbia.
1846. *July 9.* Portion of District on southern side of Potomac retroceded to Virginia.
1850. *Sept. 20.* Slave trade abolished.
1862. *April 16.* **Slavery abolished.**
1871. *Feb. 21.* Act for **territorial government;** charters of Washington and Georgetown annulled.
1874. *June 20.* Temporary act for government by Commission.
1878. *June 11.* Permanent act for **government by Commission.**
1929. Extensive building program for governmental offices begun.

GUANTÁNAMO NAVAL STATION

By act of Congress (Spooner Amendment) of March 2, 1901, prescribing future relations with Cuba, requirement was made that that country sell or lease to the United States land necessary for naval stations at points to be agreed upon with the president. Cuba accepted the requirement in her constitution, May 20, 1902.

The United States government selected Guantánamo Bay in Oriente province at the eastern extremity of the island, and on February 16–23, 1903, agreement was made with Cuba for indefinite lease of the station. The lease was signed July 2, 1903. Cuba retains ultimate sovereignty but during period of occupation the United States "shall exercise complete jurisdiction and control."

HAWAII

Historical Outline

The archipelago known formerly as the **Sandwich Islands,** more recently by the native name of Hawaii-Nei or the Hawaiian Islands, and now as the Territory of Hawaii, consists of a group of twelve islands, of which eight are inhabited and four uninhabited, lying in the central North Pacific on the **crossroads of the ocean.** Their entire **area** is 6,407 square miles. The largest islands are: Hawaii, 4,015 square miles; Maui, 728; Oahu, 598; Kauai 547; Molokai, 261; Lanai, 139; Nilhau, 73; Kahoolawo, 44.

The capital city, Honolulu, on the island of Oahu, is 2,400 miles from Seattle, 2,098 from San Francisco, 3,310 from Acapulco, 4,685 from Panama, 5,147 from Callao, 2,263 from Pago Pago, 3,850 from Auckland, 4,424 from Sydney, 3,387 from Guam, 4,778 from Manila, 4,917 from Hong Kong, 3,400 from Yokohama. This **strategic center** commands the main routes of international commerce and communication on the Pacific between the East and West and dominates the development of the Pacific. **Pearl Harbor,** in Oahu, near Honolulu, is capable of being rendered at relatively small outlay one of the finest harbors in the world.

By tradition the islands were discovered by Spanish navigators in the sixteenth century. Possibly shipwrecked Spaniards are responsible for an element at the present time showing light complexion and other European characteristics. The natives call themselves Kanakas.

The first recorded **discovery** of the Hawaiian group was made by the English Captain Cook, in 1778; later he antagonized the natives, who killed him (February, 1779). At this time, each island was ruled by its own chief. The chief of Hawaii, named **Kamehameha,** was a man of enterprise; he was taught by the English explorer, Vancouver, to build ships and made an insular fleet of twenty vessels. Kamehameha supplied his soldiers with firearms and conquered the neighboring islands, uniting six of them in one government. Thus he became king of the so-called Sandwich Islands. He was succeeded by his son, Kamehameha II. To this epoch belongs the abolition of idolatry and of the system of taboo.

In 1820 a company of **American missionaries** reached Honolulu, and soon the English missionary, Ellis, brought with him Christian natives from Tahiti (Society Islands). From this time there was progress in the direction of European civilization. The native language was reduced to a written form. A little later the missionaries induced the sovereign to accept the Ten Commandments as the constitution of the kingdom.

In 1840 Kamehameha III granted a new frame of government with civil rights to his people. In 1843 a provisional cession of the islands was made to Great Britain, but in 1844 the independence of Hawaii was restored, and was guaranteed by Great Britain, France, and the United States. In 1891 Queen Liliuokalani succeeded, but because of evasions and nullifications of the constitution, and the granting of opium and lottery monopolies, the queen was dethroned in 1893 by an uprising of the Americans and influential natives.

The American minister, Stephens, declared Hawaii under the protection of the United States, and negotiated a treaty of annexation which President Harrison submitted to the Senate. This was withdrawn by President Cleveland; and since Liliuokalani refused to grant amnesty the United States interposed no obstacle to the establishment of the **Republic of Hawaii** in 1894. In 1898, at the time of the Spanish-American War, the strategic importance of the islands was demonstrated and in that year, in accordance with the desire of the Hawaiian government, the islands were **annexed to the United States.**

In 1900 Hawaii was organized as the Territory of Hawaii. The legislature consists of a Senate of 15 members elected for four years with a suffrage based on intelligence qualifications, which shuts out many of the natives, and a House of Representatives of 30 elected for two years. The governor and secretary are appointed by the president, and a delegate to the Congress of the United States is elected biennially. By the terms of annexation all persons who were citizens of the Republic of Hawaii became citizens of both Hawaii and the United States. Since that time **citizenship** is acquired as in the United States.

The population is diverse. The native Hawaiians, because of a high death rate, are declining, as are the Chinese through emigration to China. On the other hand the Americans and Europeans are increasing. There were in 1930 about 139,000 Japanese whose children are born into citizenship. At present Chinese, Japanese, and Korean immigration is prohibited. The total **population** is 368,336 (1930). Because of the difficulty of obtaining labor, the Department of Labor and Immigration and the Hawaiian Sugar Planters Association gave assistance to certain classes of immigrants from the Philippines and some European countries. In recent years the importance of Hawaii as a naval base and the scene of naval maneuvers has increased, and it is a resort for tourists. In 1932 a congressional committee was appointed to investigate social conditions, including interracial relations. The population contains, besides the native Kanakas, Chinese, Japanese, Filipinos and Spaniards.

Nearly all the natives are Christian, the Protestants being nearly twice as numerous as the Catholics, who are chiefly Portuguese. Since 1840 **schools** have been established and education is now free and compulsory between the ages of 6 and 17. There are several industrial schools. **Higher educational institutions** include the publicly controlled University of Hawaii and the privately controlled Oahu College, and St. Louis College. Great effort is made to improve and preserve the health of the inhabitants, the bubonic plague has been practically eliminated, and every effort is made to control leprosy

N O P Q R S T U V W X Y Z

and tuberculosis, to which the natives are peculiarly susceptible.

The islands are to a great extent mountainous and volcanic, but the **soil** is highly **fertile**. Sugar and pineapples are the staple products, while coffee, hides, bananas and wool, are also exported.

Chronology

1778. Discovery by Captain James Cook.
1795. Group united under kingship of **Kamehameha I.**
1820. *March 31.* American missionaries begin their labors.
1840. **Constitutional government** inaugurated.
1843. *Nov. 28.* Anglo-French agreement to consider Hawaii an independent state.
1849. *Dec. 20.* First treaty with United States.
1854. Treaty of annexation to United States drafted; not acceptable to American government.
1875. *March 18.* **Reciprocity treaty** with United States. Earlier treaties (1855, 1867) not ratified by Senate.
1893. *January.* **Revolution** deposes queen. Treaty of annexation to United States signed, February 14, but withdrawn by President Cleveland, March 9.
1894. Independent republic. Officially recognized by the United States, August 8.
1898. *July 7.* **Annexed to United States** by consent of the Hawaiian government and by joint resolution of Congress.
1900. *April 30.* **Territorial government** enacted.
1917. *Nov. 11.* Queen Liliuokalani dies.
1928. *August.* **Hawaii celebrates the 150th anniversary** of its discovery by Captain Cook.
1932–1933. Approximately one million tons of **sugar** produced.

PACIFIC ISLANDS

GUAM

Guam, the largest of the Ladrone or Marianas Islands, early discovered by the Spaniards, was captured by the United States in the Spanish American War and ceded by Spain in the subsequent treaty of 1898. The **area** is 206 square miles. Under Spain the island was neglected, but since 1900 a system of **schools** has been established and **improvements** introduced in roads, agriculture, and sanitation. A government radio station exists on the island, which is also in cable communication with the rest of the world. The only local **government** is that administered by a naval officer appointed by the president, who exercises executive, legislative, and judicial functions. The harbor of Agaña is closed to all vessels except by permission of the navy department. The **products** of the island are maize, rice, coffee, sugar, and copra; and the exports amounted to about $54,000 in 1932, while the imports were three times as much. The population (1930) is 18,509 (including the naval force), an increase of 39.5% since 1920.

Chronology

1521. **Discovered** by Magellan.
1668. **Occupied** by Spain.
1898. *June 20.* **Captured** by the American cruiser *Charleston* while *en route* to Philippines.
Dec. 10. **Ceded to United States** by Spain. Governor is a naval officer, chief of the Naval Government of the Island of Guam.

THE SAMOA ISLANDS

In 1722 the Dutch Captain Roggeveen discovered the cluster of islands to which, forty-six years afterward, Louis Antoine de Bougainville gave the name Îles des Navigateurs, or Navigators Islands.

In recent times the **name** of this group has been changed to the native word "Samoa." The cluster consists of fourteen islands in all, having a total **area** of 1,070 square miles. The three important ones are Savaii, Upolu, and Tutuila. On the northern shore of the second named is the harbor of **Apia**, which, by the tripartite agreement of 1879, made by Germany, Great Britain, and the United States, was declared to be an international port of entry, to be controlled by the consuls of the three powers named. The German party at Apia, instigated by the Hamburg commercial house of Godeffroy and Son, took sides with one of the national factions under Tamasese. The islands were desired by Germany, Great Britain, and the United States — chiefly as a **naval center.** In 1881 the three powers agreed on a scheme involving nominal joint control.

This scheme was a failure, and the other powers interfered, and in a conference at Berlin in 1889 it was agreed that Samoa should be independent and neutral, with the right to govern itself, including the right to elect its king.

In 1899, owing to trouble over the kingship, the treaty powers started negotiations for a change of government, while these were in progress, Great Britain in exchange for other territory ceded to **Germany** all her Samoan interests. Finally, in 1900 it was agreed between Germany and the United States that the island of Tutuila and all other islands of the Samoan group east of 171° west of Greenwich should belong to the **United States;** while the islands west of that meridian should belong to **Germany.** This group was ceded by Germany to the Allies in the treaty of 1919.

The **situation** of Samoa on the main lines of navigation between San Francisco and Auckland, Honolulu and Sydney, Queensland and Panama, Tokyo and Cape Horn, gives to the islands whatever world interest they may claim. They are, though small, **very productive.** The local products include copra, taro, breadfruit, yams, coconuts, pineapples, oranges, and bananas. The **population** in American Samoa numbers 8,056, mostly pure Polynesians, all of whom have been Christianized by the missionaries. There are 24 public **schools** on the islands, attended by over a thousand boys and nearly a thousand girls.

The harbor of Pago Pago, in Tutuila, one of the best small ports in the Pacific, was ceded to the United States as a naval and coaling station in 1872. The United States maintains a naval station there under a commandant who is also governor of the islands. The insular officers are appointed by him and he is maker of such regulations as he deems necessary. Still, the customs of the people are not interfered with, and they enjoy practical self-government.

Chronology

1722. Sighted by Dutch navigator Roggeveen.
1839. **Explored** by American naval officer Wilkes.
1853. American commercial agent appointed.
1872. *Feb. 17.* United States obtains Pago Pago Bay (Tutuila Island) as naval station.
1878. *Jan. 16.* Treaty with United States. Naval station at Pago Pago confirmed.
1879. *Jan. 24.* Treaty with Germany. Naval station at Saluafata (Upolu Island).
Aug. 28. Treaty with Great Britain. Naval station at site to be selected.
1884. *Nov. 10.* Treaty of King Malietoa with **Germany;** virtual **protectorate.** Americans and British object. King refuses to carry out treaty.
1885. *Dec. 31.* German reprisals on Malietoa. Conference of three powers follows.
1887. Germany dethrones Malietoa. **Civil war** follows.
1889. *June 14.* **Tripartite treaty** by United States, Great Britain, and Germany. Independence of islands; joint supervision. Does not work satisfactorily.
1899. *Dec. 2.* Second tripartite treaty. Islands divided; Tutuila and Manua **annexed to United States,** rest to **Germany;** Great Britain satisfied elsewhere. American islands have a naval governor.
1900. *April 10* and *July 16, 1904.* By acts of these dates, cession of all sovereignty to the United States was agreed to by the chief of the Islands.
1925. *May 13.* Swains Island becomes a part of American Samoa.
1929. *Feb.* Congress accepts cession of the Islands.
1930. American Samoan Commission recommends legislation for Islands.

WAKE ISLAND

Wake Island is a small isolated island, lying about 19 degrees north of the equator almost on the direct line connecting Honolulu and Manila and not far from midway between the two. Its importance lies in its use as a cable station between Honolulu and Manila. Its area is about three square miles.

1898. *July 4.* United States flag hoisted over Wake Island by Gen. F. V. Greene, commanding Second Detachment Philippine expedition.
1899. *Jan. 17.* Formal possession taken by an American naval officer.

MIDWAY ISLANDS

A group of two small, low islands, useful only as a cable relay station. Area about 1.5 square miles. The population in 1930 was 36.

1867. *Aug. 28.* Midway (or Brook) Island formally occupied by American naval commander.
1903. Becomes a United States cable station.
1909. Transferred to jurisdiction of Hawaii.

GUANO ISLANDS

By an act of Congress passed on August 18, 1856, any guano island outside of a recognized jurisdiction discovered and occupied by a citizen of United States shall be considered as appertaining to United States. Provision was made for working the deposits under bond, and relinquishment after removal of guano. Under the act some 70 or more islands have been bonded, mostly in the Pacific, notably Baker, Christmas, and Howland. Many have been stricken from the list. Christmas Island was later occupied by the British.

PANAMA CANAL ZONE

The Panama Canal Zone, a strip of territory five miles on either side of the Canal route, was **ceded** by Panama **to the United States** by the treaty of 1903. Since the Zone is a military reservation, no private individuals or traders are permitted to settle or acquire land. The government is vested in a governor appointed by the president for a term of four years and in such other officers as the president shall deem necessary.

The Canal has a summit elevation of 85 feet above the sea and is 43.8 nautical miles in length, including its approaches. From shore to shore the Canal is about 35 miles long. The channel ranges from 300 to 100 feet wide and has a minimum depth of 41 feet. The average time of passage through the Canal is from seven to eight hours. It is estimated that the maximum traffic capacity of the Canal is 36 ships per day. The cost of the construction of the Canal to June 30, 1917, was $365,631,760. The Canal was formally opened August 15, 1914, and has been in use ever since except when temporarily closed owing to landslides.

The **population** of the Canal Zone (1930) was 39,467. From 1914 to 1932, 69,466 commercial vessels with a net tonnage of 315,372,561 tons passed through the Canal, paying a total of $292,864,830 in tolls. In 1933, canal operations netted in revenue $11,911,209, which was about four million less than the interest charges on the bonds plus the cost of operation.

Chronology

1845–1902. Several projects for a canal in the Central American or Panama route.
1903. *Nov. 18.* By treaty, Panama **cedes to United States** sovereign rights over a zone of land five miles wide on each side of the proposed canal; excluding cities of Panama and Colón and their harbors. Grant also of such land outside the five-mile zone convenient for construction and operation of the canal; also certain islands in Panama Bay. Right to impose sanitary ordinances and to maintain order in cities of Panama and Colón.
1904. *April 28.* Act of Congress authorizing possession and occupation of the Zone, and such temporary government as president may create.
May 9. Instructions issued by president to Isthmian Canal Commission, one member of which is governor of the Zone, to make all needful rules for government and administration of the military, civil, and judicial affairs.
1911. *March 4.* First appropriation for fortifications for the Canal and Zone.
1912. *Aug. 24.* Act for operation of Panama Canal and government of Canal Zone. Governor of the Canal to have full civil control over the Zone, "which is to be . . . governed as an adjunct of . . . Panama Canal." District court created.
1914. *Sept. 2.* **Treaty with Panama** defining boundaries of Zone.
1916. *Aug. 21.* Act authorizing president to make rules affecting health, sanitation, quarantine, taxation, roads, automobiles, police powers, and immigration and deportation.

THE PHILIPPINE ISLANDS

Historical Outline

The Philippine Islands (Spanish, *Islas Filipinas*) in the last years of the nineteenth century acquired a historical importance greater than had been hitherto attached to them. While they had long been coveted by other European nations, they remained the Spanish outpost and naval base in the Pacific until the hold of Spain was broken by the destruction of her fleet in the East and the capture of Manila in the war with the United States (1898).

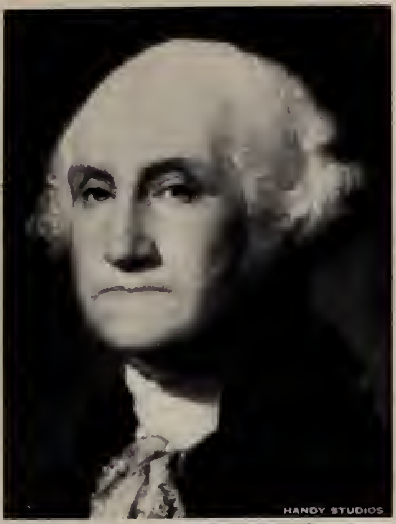
This extensive archipelago was **first visited** by men of the white race in 1521. Magellan on his round-the-world voyage reached the little island of Homonhon or Malhon, near Samar. The next month he was killed by the natives on the island of Mactan. He called the group the Islands of St. Lazarus. Subsequently, they were called Islas de Poniente, and by the Portuguese, Islas de Oriente. Villalobos gave the name Isla Filipina to the island of Samar, in honor of Philip II, of Spain.

Subsequent explorations made better known the number and character of the islands. The name of Philippines was used by the Spanish chroniclers.

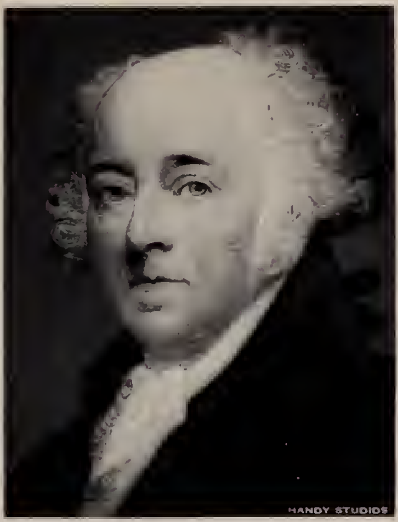
In 1571, **Manila,** on the island of Luzon, the largest and most important member of the group, was chosen as the capital of the whole. A Spanish government was organized. Civil authority of varying extent was extended over the archipelago, including more than 7,000 islands. Most of the islands are small, and many are uninhabited; Luzon, the largest, has 40,814 square miles, being over one third of the **total land surface** of the whole, which has been estimated at 114,400 square miles. The other principal islands are eight: Mindanao, Samar, Mindoro, Panay, Leyte, Negros, Masbate, and Cebu. All are of volcanic origin.

In Luzon the mountains rise to the height of 7,000 feet. The region is subject to **earthquakes,** and volcanoes occasionally burst out.

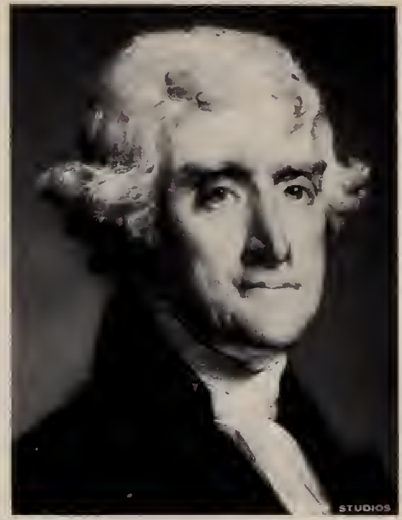
· THE PRESIDENTS OF THE UNITED STATES ·



G. Washington
(1789-1797)



John Adams.
(1797-1801)



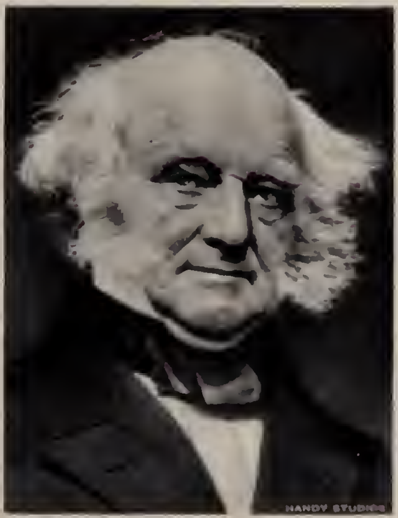
Th: Jefferson
(1801-1809)

James Madison
(1809-1817)

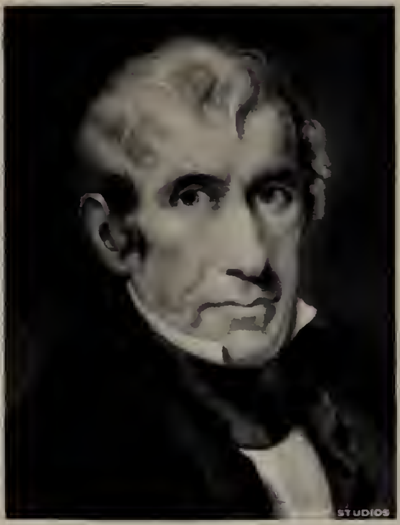
James Monroe
(1817-1825)

J. Q. Adams.
(1825-1829)

Andrew Jackson
(1829-1837)



M Van Buren
(1837-1841)

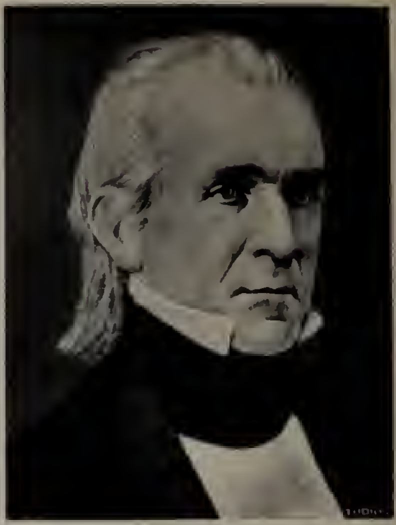


W H Harrison

(1841-Died)

John Tyler

(1841-1845)



James K. Polk

(1845-1849)

Zachary Taylor

(1849-1850-Died)

Millard Fillmore

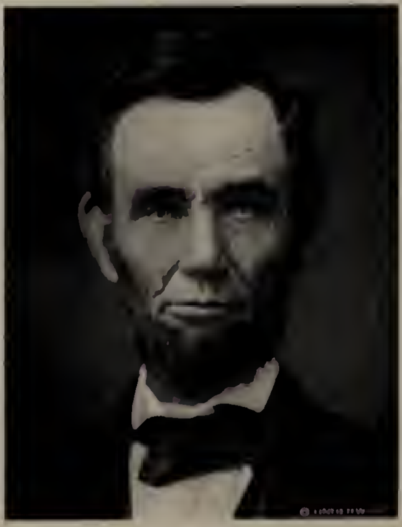
(1850-1853)

Franklin Pierce

(1853-1857)

James Buchanan

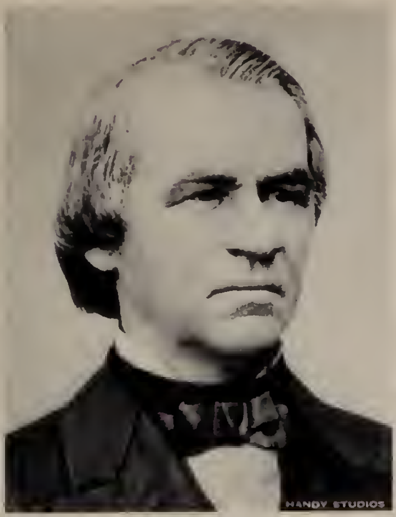
(1857-1861)



A Lincoln

(1861-1865; 1865-Died)

· THE PRESIDENTS OF THE UNITED STATES ·

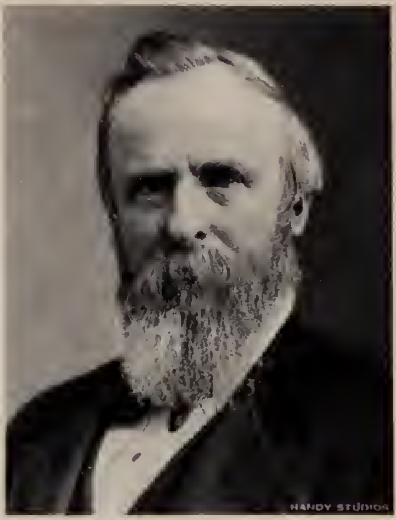


Andrew Johnson

(1865-1869)

U. S. Grant

(1869-1877)



R. B. Hayes

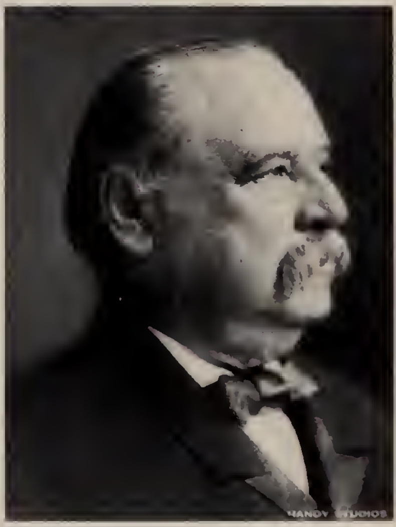
(1877-1881)

J. A. Garfield

(1881-Died)

Chester A. Arthur

(1881-1885)



Grover Cleveland

(1885-1889; 1893-1897)

Benj Harrison

(1889-1893)

William McKinley

(1897-1901; 1901-Died)

· THE PRESIDENTS OF THE UNITED STATES ·

(1901-1909)

(1909-1913)

(1913-1921)

(1921-1923-Died)

(1923-1929)

(1929-1933)

(1933-)

THE PRESIDENTS OF THE UNITED STATES

PRESIDENTS AND VICE-PRESIDENTS OF THE UNITED STATES

	President *Vice-President*	Born	Died	Residence	Administration	Party
1	**George Washington**	1732	1799	Va.	1789–1797	Fed.
	John Adams	1735	1826	*Mass.*	1789–1797	*Fed.*
2	**John Adams**	1735	1826	Mass.	1797–1801	Fed.
	Thomas Jefferson	1743	1826	*Va.*	1797–1801	*Rep.**
3	**Thomas Jefferson**	1743	1826	Va.	1801–1809	Rep.*
	1 *Aaron Burr*	1756	1836	*N. Y.*	1801–1805	*Rep.*
	2 *George Clinton*	1739	1812	*N. Y.*	1805–1813	*Rep.**
4	**James Madison**	1751	1836	Va.	1809–1817	Rep.*
	1 *George Clinton* ‡	1739	1812	*N. Y.*	1805	*Rep.**
	2 *Elbridge Gerry* ‡	1744	1814	*Mass.*	1813	*Rep.**
5	**James Monroe**	1758	1831	Va.	1817–1825	Rep.*
	Daniel D. Tompkins	1774	1825	*N. Y.*	1817–1825	*Rep.**
6	**John Q. Adams**	1767	1848	Mass.	1825–1829	Rep.*
	John C. Calhoun	1782	1850	*S. C.*	1825–1833	*Rep.**
7	**Andrew Jackson**	1767	1845	Tenn.	1829–1837	Dem.
	1 *John C. Calhoun*	1782	1850	*S. C.*	1825–1833	*Dem.*
	2 *Martin Van Buren*	1782	1862	*N. Y.*	1833–1837	*Dem.*
8	**Martin Van Buren**	1782	1862	N. Y.	1837–1841	Dem.
	Richard M. Johnson	1780	1850	*Ky.*	1837–1841	*Dem.*
9	**William H. Harrison** ‡	1773	1841	Ohio	1841	Whig
	John Tyler	1790	1862	*Va.*	1841	*Whig*
10	**John Tyler**	1790	1862	Va.	1841–1845	Whig
11	**James K. Polk**	1795	1849	Tenn.	1845–1849	Dem.
	George M. Dallas	1792	1864	*Pa.*	1845–1849	*Dem.*
12	**Zachary Taylor** ‡	1784	1850	La.	1849–1850	Whig
	Millard Fillmore	1800	1874	*N. Y.*	1849–1850	*Whig*
13	**Millard Fillmore**	1800	1874	N. Y.	1850–1853	Whig
14	**Franklin Pierce**	1804	1869	N. H.	1853–1857	Dem.
	William R. King ‖	1786	1853	*Ala.*	1853	*Dem.*
15	**James Buchanan**	1791	1868	Pa.	1857–1861	Dem.
	John C. Breckinridge	1821	1875	*Ky.*	1857–1861	*Dem.*
16	**Abraham Lincoln** §	1809	1865	Ill.	1861–1865	Rep.
	1 *Hannibal Hamlin*	1809	1891	*Me.*	1861–1865	*Rep.*
	2 *Andrew Johnson*	1808	1875	*Tenn.*	1865	*Rep.*†
17	**Andrew Johnson**	1808	1875	Tenn.	1865–1869	Rep.†
18	**Ulysses S. Grant**	1822	1885	Ill.	1869–1877	Rep.
	1 *Schuyler Colfax*	1823	1885	*Ind.*	1869–1873	*Rep.*
	2 *Henry Wilson* ‡	1812	1875	*Mass.*	1873	*Rep.*
19	**Rutherford B. Hayes**	1822	1893	Ohio	1877–1881	Rep.
	William A. Wheeler	1819	1887	*N. Y.*	1877–1881	*Rep.*
20	**James A. Garfield** §	1831	1881	Ohio	1881	Rep.
	Chester A. Arthur	1830	1886	*N. Y.*	1881	*Rep.*
21	**Chester A. Arthur**	1830	1886	N. Y.	1881–1885	Rep.
22	**Grover Cleveland**	1837	1908	N. Y.	1885–1889	Dem.
	Thomas A. Hendricks ‡	1819	1885	*Ind.*	1885	*Dem.*
23	**Benjamin Harrison**	1833	1901	Ind.	1889–1893	Rep.
	Levi P. Morton	1824	1920	*N. Y.*	1889–1893	*Rep.*
24	**Grover Cleveland**	1837	1908	N. Y.	1893–1897	Dem.
	Adlai E. Stevenson	1835	1914	*Ill.*	1893–1897	*Dem.*
25	**William McKinley** §	1843	1901	Ohio	1897–1901	Rep.
	1 *Garrett A. Hobart* ‡	1844	1899	*N. J.*	1897	*Rep.*
	2 *Theodore Roosevelt*	1858	1919	*N. Y.*	1901	*Rep.*
26	**Theodore Roosevelt**	1858	1919	N. Y.	1901–1909	Rep.
	Charles W. Fairbanks	1852	1918	*Ind.*	1905–1909	*Rep.*
27	**William H. Taft**	1857	1930	Ohio	1909–1913	Rep.
	James S. Sherman ‡	1855	1912	*N. Y.*	1909–1912	*Rep.*
28	**Woodrow Wilson**	1856	1924	N. J.	1913–1921	Dem.
	Thomas R. Marshall	1854	1925	*Ind.*	1913–1921	*Dem.*
29	**Warren G. Harding** ‡	1865	1923	Ohio	1921–1923	Rep.
	Calvin Coolidge	1872	1933	*Mass.*	1921–1923	Rep.
30	**Calvin Coolidge**	1872	1933	Mass.	1923–1929	Rep.
	Charles G. Dawes	1865	..	*Ill.*	1925–1929	*Rep.*
31	**Herbert C. Hoover**	1874		Calif.	1929–1933	Rep.
	Charles Curtis	1860	..	*Kans.*	1929–1933	*Rep.*
32	**Franklin D. Roosevelt**	1882	.	N. Y.	1933–	Dem.
	John N. Garner	1869	..	*Tex.*	1933–	*Dem.*

* Previous to 1828, the term "Republican" was applied to a party which arose in opposition to the Federalists, and which was the progenitor of the present Democratic party.

† Although elected by the Republican party, and a strong supporter of the Union, Mr. Johnson was primarily a Democrat.

‡ Died while in office. § Assassinated. ‖ Never served as V.-P.

GEORGE WASHINGTON

First President (1789-1797)

George Washington, the first president of the United States, as also the first leader of the armies of the United States, was **born** in Westmoreland County, Virginia, February 22, 1732. His father, a planter, died when the son was eleven years old; his mother lived to the age of eighty-two; to her training he owed especially his high sense of honor and his integrity. **As a youth,** he was methodical in his habits, active in athletic pursuits, and conversant with nature. When seventeen years old, he received a commission as a public surveyor, having shown a great aptitude for that career. At nineteen years he was made adjutant general, with rank of major, in charge of one of the militia districts of Virginia. His brother, at this time residing at Mount Vernon, Virginia, died, leaving him in charge of his estate.

It was now 1753. The French on the frontier were setting up claims to territory already claimed by Virginia. Washington was chosen by Governor Dinwiddie to go as commissioner with large powers to learn the intentions of the French and to warn them against encroachment. To accomplish this, he had to make alone a perilous journey through the wilderness. This task he performed successfully and with rare good judgment. The Governor decided to take active measures to repel the French encroachments, and Washington was appointed lieutenant colonel in command. He was captured by a party of French at Great Meadows — the beginning of the **French and Indian War.** In 1755 he accompanied General Braddock on his ill-fated expedition. He was exposed to extreme peril, but escaped unhurt, and his courage and ability made him a marked man. He served in this war for three years, taking active part in the capture of Fort Duquesne. This training gave him an admirable knowledge of military affairs. His success had made him the most prominent Virginian in military service.

In 1759, in his twenty-seventh year, he **married** Mrs. Martha Custis, a young widow with two children, who became his charge. Washington never had children of his own. The joint estate which he now held was large and required great attention, but he could not avoid public life, and he took an active part in the discussions which led to the Revolutionary movements. He was a delegate to the first Continental Congress, held in 1774, and Patrick Henry pronounced him the greatest man on the floor for solid information and sound judgment. When the second Congress assembled in 1775, Washington was again a member and was placed at once at the head of important committees. When the hour came and the colonies prepared to take up arms in defense of their liberties, he was the unanimous choice of Congress for the post of **commander in chief** of the American armies.

Washington, profoundly humble, but firm in his conviction of the righteousness of the country's cause, accepted the trust. On the 3d of July, 1775, in Cambridge, Massachusetts, he drew his sword as **commander of the army,** beneath or near a great elm, the site of which is now indicated by a commemorative stone. He retained command throughout the war and proved himself a great general, for he was patient and cautious when the odds were against him, prompt and bold to act when opportunity offered, and held the army in his hand, now as a shield to protect the country, now as a weapon to strike a decisive blow. He commanded men, for he was a born ruler and had learned the mastery of himself.

When the war was over, he resigned his commission and retired to private life. He would receive no money other than expenses for his public services, but at once began to devise plans for increasing the resources of Virginia. It was impossible that he should be left alone. When a great civil need arose, the people again demanded him. He went as a delegate from Virginia to the convention which framed the Constitution, and was its presiding officer. Upon the adoption of the Constitution, he was **unanimously chosen first president** of the United States, in 1789. He went to New York to take the office April 30, 1789, and his journey was a triumphal procession. In the organization of the government under the new Constitution he rendered great service; he made all the first appointments to executive and judicial office; he favored sound finance and a national bank. When war broke out in Europe in 1793, he stood firm for neutrality. His skill aided in settling controversies with England by the Jay Treaty of 1794; and he put down the Whisky Insurrection. After four years of service, he was unanimously chosen for a second term. No other man stood as he in the hearts of men, and by his firmness, his large wisdom, and his singleness of purpose to promote only the good of the country, he kept the young nation together when it was forming, against perils from faction within, and perils from enemies without. He refused to hold office for a third term, and wrote a **Farewell Address** which has the tone of a benignant father to his children. He returned to his country estate, but in 1798, when there was imminent prospect of war with France, the country again turned to him and he was appointed commander in chief of the army. He immediately began the organization of his command, but died at his home, December 14, 1799, in the sixty-eighth year of his age. His remains were buried in the family tomb at Mount Vernon, where they still rest. His death was followed by universal mourning. He was pronounced " first in war, first in peace, and first in the hearts of his countrymen."

Chronology

1732. *Feb. 22* (*N.S.*). Born at Bridges Creek, Va.
1759. *Feb. 22.* Member of Virginia House of Burgesses.
1774. *Aug. 1.* Member of Virginia Convention.
Sept. 5. Member of First Continental Congress.
1775. *May 10.* Member of Second Continental Congress.
June 15. Commander in chief of Continental Army. Takes command at Cambridge, July 3.
1783. *Dec. 23.* Surrenders command of army.
1787. *May 25–Sept. 17.* President of Federal Convention.
1789. *April 30.* Inaugurated first president of United States. Re-elected in 1792. Retires, 1797.
1796. *Sept. 19.* Farewell Address.
1798. *July 3.* Commissioned lieutenant general in command of United States Army.
1799. *Dec. 14.* Dies at Mt. Vernon.

JOHN ADAMS

Second President (1797-1801)

John Adams, who succeeded Washington in the presidency, was associated with him as vice-president. He was a Massachusetts man, born October 30, 1735. In **early life** he was a schoolmaster and at the outbreak of the War for Independence he was a lawyer. He took a leading part in the early measures of resistance against the British crown, but was not at first in favor of separation. He was very independent in spirit and courageous in his convictions, as when he defended the soldiers concerned in the Boston Massacre, taking the unpopular side then as often afterward. He was a **delegate** to the first and second **Continental Congresses** of 1774 and 1775. In the latter he proposed the name of George Washington as commander in chief, seconded the resolution for independence introduced by Richard Henry Lee, and was one of a committee of five (the other members being Thomas Jefferson, Benjamin Franklin, Roger Sherman, Robert R. Livingston) to draw up the Declaration of Independence.

In February, 1778, he was **sent to France** as one of the diplomatic commissioners from the new nation. There he made but a short stay, inasmuch as the object of his mission had already been accomplished by Benjamin Franklin, after the surrender of Burgoyne. He returned to America in August, 1779. In October of the same year he was again sent abroad by Congress and was active on the commission which negotiated a favorable peace with Great Britain (Sept. 3, 1783). He was first minister of the United States to Great Britain, holding that office till near the close of 1789.

Simultaneously with the adoption of the Constitution in 1789 Adams returned to the United States and was elected to the office of **vice-president.** This position he held for eight years; and then, upon the retirement of Washington, he was elected **president.** He came into power when the Federal party, to which he belonged, was giving way before the Republican party, headed by Jefferson. Adams was not in sympathy with all the measures advocated by his own party, and did not get on well with Hamilton, another able leader of the Federalists. The faction in the party and the bitter political feuds throughout the country, together with the fierce European war, brought the United States into peril. Adams favored the Alien and Sedition Acts of 1798, which injured his party. In the controversies with France, including the X Y Z mission of 1797, he stood for national honor and for peace, but he accepted the Naval War of 1799 against France. Then he hastened the peace of 1800 with France.

The rest of his life he spent in **retirement** at his home in Quincy, Massachusetts. His wife, Abigail, to whom he was married in 1764, was a remarkable woman, as shown by the letters which passed between them during the separation caused by his public duties. His own character is significantly shown in this correspondence, and is well described in the words of his grandson: "Ardent, vehement in support of what he believed to be right, easily roused to anger by opposition, but sincere, placable, and generous, when made conscious of having committed the slightest wrong, there is no individual of his time about whom there are so few concealments of either faults or virtues." He died, July 4, 1826, just fifty years after that Declaration of Independence, in the framing of which he bore so important a part.

Chronology

1735. *Oct. 30* (*N.S.*). Born at Braintree (Quincy), Mass.
1755. *July 16.* Graduated at Harvard College.
1774. *Sept. 5.* Member of First Continental Congress.
Nov. 28. Member of Massachusetts Provincial Congress.
1775. *May 10.* Member of Second Continental Congress.
1776. *Aug. 2.* Signs Declaration of Independence, having been a member of the committee which prepared it.
1778. *April 8.* In Paris as commissioner to France.
1779. *Sept. 1.* Member of Massachusetts Constitutional Convention. Drafts the document.
1780. *Dec. 29.* Minister to the Netherlands.
1783. *Sept. 3.* Signs treaty of peace with Great Britain at Paris.
1785. *May 14.* Minister to Great Britain.
1789. *April 21.* Vice-president of United States.
1797. *March 4.* President of United States.
1800. Defeated for re-election. Retires 1801.
1820. *Nov. 15.* Member of second constitutional convention of Massachusetts.
1826. *July 4.* Dies at Quincy, Mass.

Chronology

1790. *March 29.* Born in Charles City Co., Va.

1807. *July.* Graduated at College of William and Mary.

1811. *December.* Member of Virginia House of Delegates.

1815. Member of Virginia executive council.

1816. *Dec. 17.* Member of House of Representatives.

1825. *Dec. 1.* Governor of Virginia.

1827. *Dec. 3.* United States senator.

1829. *Oct. 5.* Member of second constitutional convention of Virginia.

1841. *March 4.* Vice-president of United States.

April 6. President of United States by death of Harrison. Retires, 1845.

1859. Chancellor of College of William and Mary.

1861. *Feb. 5.* President of Peace Conference.

March 1. Member of Virginia Secession Convention.

July 20. Delegate to Confederate Provisional Congress.

1862. *Jan. 18.* Dies at Richmond, Va.

JAMES KNOX POLK

Eleventh President (1845-1849)

James Knox Polk, eleventh president, was born in North Carolina in 1795, became a member of the bar in Tennessee in 1820, was elected a member of congress in 1825, and three times was elected **Speaker of the House.** In 1844 he was nominated for the presidency by the Democrats as a "dark horse" because he supported the annexation of Texas. His opponent, Henry Clay, was uncertain, and Polk was elected in a very close contest. No president has been more successful in gaining his ends. He adjusted the Oregon boundary (1846) and annexed California and New Mexico. The **Mexican War,** which was prosecuted during his term of office, was favored largely by those who saw in it a means of strengthening the power of the Southern slavery forces. He was a man of industry and ability. He served one term, 1845–49, declining to seek renomination, and died on June 15, 1849, three months after his departure from the White House.

Chronology

1795. *Nov. 2.* Born in Mecklenburg Co., N. C.

1818. *June.* Graduated at University of North Carolina.

1823. *Sept. 15.* Member of Tennessee House of Representatives.

1825. *Dec. 5.* Member of United States House of Representatives.

1835. *Dec. 7.* Speaker of House of Representatives.

1839. *Oct. 14.* Governor of Tennessee.

1845. *March 4.* President of United States. Retires, 1849.

1849. *June 15.* Dies at Nashville, Tenn.

ZACHARY TAYLOR

Twelfth President (1849-1850)

Zachary Taylor, twelfth president, was born in Virginia, September 24, 1784, but his father early removed his family to Kentucky, where frontier life developed the military ability of the boy. He joined the **army** in 1807, and Madison, a relative, who was then secretary of state, procured him a lieutenancy. He was engaged in the war of 1812 and in wars against the Indians in Arkansas and Florida, and rose through all grades to the rank of brigadier general. In 1846 he was in command on the frontiers of Mexico, and when the war broke out he at once crossed the Rio Grande and gained striking victories at **Palo Alto** and **Resaca de la Palma.** His success afterward at **Monterrey,** and **Buena Vista,** and his general conduct of the campaign, marked him as an able soldier. Though his knowledge of civil affairs was slight, and he had had no political training for the office, his personal popularity made him an available candidate, and he was elected in 1848. He faced a Democratic plurality in Congress, with the balance of power in the hands of a group of Free-Soil men. The questions at issue were the extension of slave territory, admission of California, and the boundaries of Texas. He held the chair for sixteen months only, dying from an attack of cholera, July 9, 1850.

Chronology

1784. *Sept. 24.* Born in Orange Co., Va.

1808. *May 3.* Lieutenant in United States Army.

1846. *May 8, 9.* Battles of Palo Alto and Resaca de la Palma.

June 10. Major general.

July 16. Thanks of Congress. Also on March 2, 1847, and May 9, 1848.

Sept. 21–24. Capture of Monterrey.

1847. *Feb. 22–23.* Battle of Buena Vista.

1849. *March 5.* President of United States.

1850. *July 9.* Dies at Washington.

MILLARD FILLMORE

Thirteenth President (1850-1853)

Millard Fillmore, thirteenth president, was born January 7, 1800, in Locke, now Summerhill, Cayuga County, New York. His early life was one of struggle with adversity, but he succeeded in securing a legal education, and was admitted to the bar in 1827. Buffalo became his home shortly after, and he was sent to the State legislature. In 1832 and again in 1836 he was elected to Congress, where he made his mark, especially as **an advocate of tariff legislation.** In 1844 he was nominated by the Whigs to the office of governor of New York, but failed of election. In 1847 he was elected comptroller of the State, and in 1848 was nominated for vice-president. By the death of President Taylor, July 9, 1850, Fillmore succeeded to the chair. He surrounded himself with an able cabinet and endeavored to follow a middle course between the political extremes. The passage of the Fugitive Slave Bill during his administration, and his proclamation enforcing it, estranged from him a large section of the Whig party. After his retirement from office (1853) he spent some time in travel at home and abroad, and while absent received a nomination for the presidency at the hands of the American party in 1856. He obtained the electoral votes of one State, Maryland. He spent the remainder of his life quietly in Buffalo, where he died, March 8, 1874.

Chronology

1800. *Jan. 7.* Born in Cayuga Co., N. Y.

1829. *Jan. 6.* Member of New York Assembly.

1833. *Dec. 2.* Member of House of Representatives.

1848. *Jan. 1.* Comptroller of New York.

1849. *March 5.* Vice-president of United States.

1850. *July 10.* President of United States by death of Taylor. Retires, 1853.

1856. *Nov. 4.* Defeated as American, or Know-Nothing, candidate for presidency.

1874. *March 8.* Dies at Buffalo.

FRANKLIN PIERCE

Fourteenth President (1853-1857)

Franklin Pierce, fourteenth president, was born in Hillsborough, New Hampshire, November 23, 1804, and after graduating at Bowdoin College, where he and Nathaniel Hawthorne were intimate friends, he studied law under Levi Woodbury. He was member of the State legislature from 1829 to 1833, and Speaker of the House during the last year, when he was elected to Congress and served two years in the lower house. In 1836 he was sent to the United States Senate, but at the close of his term returned to the practice of the law. In the **Mexican War** he became a volunteer, was colonel in command of a regiment, and saw some service.

In 1852 Pierce was little known in the country, but was nominated by the Democratic Convention on the forty-ninth ballot. The Whig candidate was General Winfield Scott, who in the Mexican War gained distinction. Pierce received more than six sevenths of the entire electoral vote and the Whig party rapidly disintegrated, never again putting a presidential ticket in the field. Though a Northern man, Pierce sympathized with the extreme Southern school and made Jefferson Davis, of Mississippi, his secretary of war. As chief magistrate he showed little ability to direct or command. Personally agreeable, of elegant manners, most estimable in private life, he lacked vigor for the conduct of affairs and merely drifted with the tide. He failed to receive a renomination in 1856. Retiring to private life, he died at Concord, New Hampshire, October 8, 1869. During his term the **"Missouri Compromise" was repealed,** opening the Territories to slavery.

Chronology

1804. *Nov. 23.* Born at Hillsborough, N. H.

1824. Graduated at Bowdoin College.

1829. *June 3.* Member New Hampshire House of Representatives.

1833. *Dec. 2.* Member United States House of Representatives.

1837. *March 4.* United States senator.

1847. *Feb. 16.* Colonel in United States Army; Brigadier general, March 3.

1850. *Nov. 6.* Member of fifth constitutional convention of New Hampshire.

1853. *March 4.* President of United States. Retires, 1857.

1869. *Oct. 8.* Dies at Concord, New Hampshire.

JAMES BUCHANAN

Fifteenth President (1857-1861)

James Buchanan, fifteenth president, was born in Franklin County, Pennsylvania, April 23, 1791, graduated at Dickinson College, and in 1812 was admitted to the bar. He was a Federalist in the early days. He was sent to Congress in 1821, after serving in the State legislature, and was ten years in the House. In 1832 he became minister to Russia under appointment of President Jackson, to whose party he had attached himself, and in 1834 was chosen to the United States Senate, where he supported Jackson and Van Buren. He was President Polk's **secretary of state,** and was sent by Pierce as **minister to England.** While there he joined the ministers to France and Spain in a paper called, from the place where it was drawn up, the **Ostend Manifesto,** in which an attempt was made to force the United States into a policy for the possession of Cuba.

The contest between the slave power and the antislavery sentiment had been growing in intensity during Pierce's administration. The election in 1856 showed a great increase in the popular vote for the antislavery, now called the Republican, candidate; but the Democratic party was highly organized, and responded to the will of the South, which was now thoroughly sensible of its relatively declining power and put forth a strong effort to retain control.

Upon his elevation to the presidency Buchanan placed several extreme Southerners in his cabinet, and made repeated efforts to **annex Mexico** and Central American territory. After the election of Abraham Lincoln, in 1860, Buchanan drifted. His message of December, 1860, tied his own hands against taking action, by accepting the construction of the Constitution under which the South justified its preparations to secede. The occupation of Fort Sumter by Major Anderson, Dec. 26, brought about a cabinet crisis. Buchanan was ready to surrender the fort, but Jeremiah Black, his secretary of state, threatened to resign; Buchanan gave in helplessly and from that time to the end of his term, March 4, 1861, was a chip in the stream. The events which followed his administration plunged him into obscurity till his death in 1868.

Chronology

1791. *April 23.* Born near Mercersburg, Pa.

1809. *September.* Graduated at Dickinson College.

1814. *Dec. 6.* Member of Pennsylvania House of Representatives.

1821. *Dec. 3.* Member of United States House of Representatives.

1832. *Jan. 4.* Minister to Russia.

1834. *Dec. 15.* United States senator.

1845. *March 10.* Secretary of state of United States.

1853. *April 11.* Minister to Great Britain.

1857. *March 4.* President of United States. Retires, 1861.

1868. *June 1.* Dies at Lancaster, Pa.

ABRAHAM LINCOLN

Sixteenth President (1861-1865)

Abraham Lincoln was born near Hodgenville in Hardin County (now in Larue County), Kentucky, February 1, 1809. His father could neither read nor write. His early life was that usual for pioneers. He worked with axe and plow, like his neighbors. At nineteen he patiently sought a qualification for higher pursuits, but he enlisted in the Black Hawk War and was chosen captain of a company.

After various vicissitudes he secured admission to the bar, and at the same time was urged by his friends to accept political office. He was a great admirer of Henry Clay, and in 1844 took an active part in the canvass for his election. He had been identified from the beginning with the Whig party, and in 1846 was elected to **Congress.** He was not conspicuous in the House, but in the test questions upon **slavery** was always found upon the side of those who would restrict it and obstruct its encroachments. He was a candidate for election to the Senate in 1849, but was defeated.

At this time he was engaged in the practice of his profession at Springfield, Illinois. As the Whig party melted away he attached himself to the Republicans, and was urged by his neighbors as a candidate for the vice-presidency with Frémont. In 1856 he was chosen with great unanimity to confront Stephen A. Douglas, who was the Democratic candidate for United States senator.

Douglas had a powerful following and was one of the most prominent men in the country. A memorable campaign followed, when the two rivals fought the intellectual battle in a series of personal debates to immense audiences throughout the length and breadth of the State. Lincoln's homely force, his unfailing good nature, and the moral strength of his convictions made a deep impression upon his auditors. He failed of an election to the Senate by the legislature, although he had secured a popular majority, but the contest served to make him more conspicuous and trusted. His nomination as president was followed by his **election** in 1860 and the minds of the North turned anxiously to the subject of their choice. At first he disappointed many: he did not move quickly enough for some; he seemed to others unappreciative of the gravity of the situation. He came to Washington unheralded in February, 1861, warned against a plot to assassinate him.

Because of the party blocs in both the House and Senate, little constructive legislation was passed during this Congress, but the President's reputation was probably increased by his unsuccessful **veto of the Bonus Bill,** and his denunciation of the Immigration Bill, which he signed under protest. More serious for the Republican party were the scandals which came to light in connection with the administration of the **Veterans' Bureau and** the disposition of the **naval oil reserves** at Elk Hills and Teapot Dome. Colonel Forbes of the Veterans' Bureau was indicted, later tried and found guilty. Secretary of the Navy Denby resigned and the President forced the retirement of Attorney General Daugherty. But while appointing counsel and promising to prosecute any discovered irregularity, he did not denounce the specific participants in the scandals nor personally actively lead in their prosecution. His scrupulous regard for the legal rights of the accused, as well as his conception of the proprieties and duties inherent in his position as President, made it impossible for him to assume the functions of a prosecutor.

President Coolidge was **nominated for the presidency** at the Cleveland Convention in 1924, and triumphantly re-elected in the fall of that year. The campaign demonstrated that his **personal popularity with the electorate** outweighed the disappointing record of his party.

Due to the continued existence of blocs, the legislative record of President Coolidge's administration was meager. The most important topics were tax reductions, the revision of the tariff from a protectionist point of view, and the struggle over the question of relief for the farmers. In foreign affairs, although the President continued to urge adherence to the World Court, he agreed to the Senate reservations which provod unacceptable to other nations. In 1927 he suggested a conference for the further reduction of naval armaments which, although declined by France and Italy, was attended by representatives from Great Britain and Japan. The **Geneva Conference,** as it was called, proved a disappointment since Great Britain could not assent to the reduction demanded by the United States in the small cruisers, nor could the United States accept the reduction suggested by Great Britain in large cruisers with a corresponding increase of smaller vessels. As a result Great Britain voluntarily slightly curtailed her program of naval building, while the Secretary of the Navy, with the approval of the President, although denying naval rivalry with Great Britain recommended an increase on the part of the United States which would produce a slightly increased but better balanced navy.

On August 2, 1927, President Coolidge announced that he **did not choose to run for president.** This enigmatic declaration was regarded by some as a self-denying one and an adherence to the American tradition against third terms. To others it meant that the President, while not desiring to engage in a campaign for nomination, might accept such should it be offered. In December he repeated this declaration in less uncertain terms, and urged the Republican Committee to make its plans for the selection of another candidate. Beyond endorsing the candidacy of Herbert Hoover, the President took no active part in the 1928 presidential campaign. During the last year of his administration, President Coolidge continued the policies he had adhered to from the first, urging economy and checking, by his veto, what seemed to him the unwise method of farm relief.

On March 4, 1929, he retired from the presidency and returned to Northampton where he lived as a private citizen, spending the summers at his birthplace in Plymouth, Vermont. He was chosen one of the directors of the New York Life Insurance Company and, at the time of his death, was chairman of the board. For one year, he was a contributor to the *New York Herald Tribune,* which syndicated his brief, pungent, daily articles under the title, "Calvin Coolidge says." During the campaign of 1932, he made but one address, but at President Hoover's solicitation, he became chairman of the National Transportation Committee which was appointed to study the condition of the railroads of the country. He died suddenly at his home in Northampton, January 5, 1933.

President Coolidge typified in many respects the shrewd, silent Yankee of the old New England type. His reputation did not rest upon impassioned oratorical pleas or easy and facile social graces. His public addresses were always well written, pithy, and epigrammatic, based on an almost passionate attachment to law, order, and the right of individuals. His **conception of the presidency** was that of an administrator and an executive rather than a legislative leader. He did not, as his predecessors Roosevelt and Wilson, take any open active part in forcing through Congress measures he favored or in checking those to which he was opposed. President Coolidge possessed an instinctive political ability. His reputation for simplicity and honesty, and his attachment to the homely virtues gave him a popularity with the electorate akin to that of President Roosevelt.

Chronology

1872. *July 4.* Born at Plymouth, Vt.
1895. Graduated at Amherst College.
1900–1901. City Solicitor of Northampton, Mass.
1904. Clerk of Courts, Northampton.
Chairman of Republican City Committee, Northampton.
1905. *Oct. 4.* Married Grace Anna Goodhue, of Burlington, Vt.
1907–1908. Member of General Court of Massachusetts.
1910–1911. Mayor of Northampton.
1912–1915. Member Massachusetts State Senate.
1914–1915. President of the State Senate.
1916–1918. Lieutenant governor of Massachusetts.
1919–1920. Governor of Massachusetts.
1921–1923. Vice-president of the United States.
1923. *Aug. 3.* Sworn in as president of the U.S.
1924. *Nov. 4.* Re-elected president of the United States.
1927. *Aug. 2.* Declared, "I do not choose to run for president in 1928."
1929. *March 5.* Returned to Northampton, Mass.
1933. *Jan. 5.* Died at Northampton, Mass.

HERBERT CLARK HOOVER

Thirty-first President (1928-1932)

Herbert Clark Hoover was born at West Branch, Iowa, August 10, 1874. His father, Jesse Hoover, a blacksmith, was descended from a pioneering family which had moved from their original settlement in Maryland to North Carolina, to Ohio, and to Iowa, well representing the frontier migration which characterized American expansion. His mother, Hulda Randall Minthorn, camo from a Connecticut family who had become Quakers and moved westward.

When Hoover was ten years old he became an orphan and went to live with his uncle Allan Hoover on a farm. Later he went to the home of his maternal uncle, Dr. John Minthorn. Still later he moved with his uncle to California, and in 1891, entered Leland Stanford Junior University. While at the University he was obliged to supplement his scanty income by various means of student self help.

Upon graduation he accepted a position as a day laborer in the Mayflower Mine at Grass Valley, California. In 1897 he was sent to Australia to introduce American methods in certain mines there. From that time until 1913 he acted as a mining expert and engineer, having interests in Italy, Australia, Burma, China, Russia, and South Africa. Although he traveled widely and maintained homes and offices in London, New York, and elsewhere, he regarded Palo Alto, California, as his home.

In 1914 he was in London representing in part the Panama-Pacific International Exposition. When war was declared, he organized the American Relief Commission to assist American tourists who were caught abroad. In 1915 he accepted a position as Chairman of the Commission for Relief in Belgium. This work he carried on with great success.

When the United States entered the war, Hoover was summoned home and became United States Food Administrator.

On March 5, 1921, he was appointed Secretary of Commerce by President Harding, and continued in this office during most of the Coolidge administration.

After President Coolidge's announcement that he did not "choose to run" for President in 1928, Hoover entered actively into a preconvention campaign for the Republican nomination for President. He was nominated by the Kansas City Convention on the first ballot by a vote of 837. As a campaign speaker he was successful. At the election in November, 1928, he received 21,392,190 of the 36,876,414 votes cast. The electoral vote was 444 for Hoover to 87 for "Al" Smith, the Democratic candidate. In his inaugural address, March 4, 1929, he especially stressed the need of law enforcement and farm relief.

A special session of Congress was summoned April 15 to deal with the problem of farm relief, but Congress began a revision of the tariff resulting in the next session in the Hawley-Smoot tariff which established duties higher than any previous law. The Republicans were in the majority in the House, and in co-operation with Speaker Longworth, a program was put through. In the Senate, however, the Republicans had not a sufficient majority for a consistent policy. In the seventy-second Congress, the Democrats controlled the House and President Hoover's recommendations were unsympathetically received.

President Hoover's administration opened in a period of prosperity. In October, 1929, came a rapid decline in the stock market, the beginning of a panic and of a depression which grew increasingly severe throughout his administration. In the early months the President took the attitude that business conditions would soon be readjusted and prosperity restored. As the depression continued, wages were cut and unemployment increased. Believing as he did in "rugged individuality," he hesitated to subject business to government control or to extend aid to it. Nevertheless, under his administration the Government was forced to extend and to assume direction of business to a greater extent than that of any previous time, especially through the medium of new types of corporations such as the Reconstruction Finance Corporation, the Federal Reserve Banks, and the Home Loan Banks, and the Farm Relief Board.

In foreign affairs the President played an active part. He urged upon the Senate the ratification of the World Court amended protocol. He took an active part in the Naval Conference at London. He was active in the Disarmament Conference of 1932. His suggestion of the Moratorium in 1931 resulted in the suspension of all payments on international debts as well as on reparations.

President Hoover was renominated by the Republican convention of 1932. During the last weeks of the campaign he traveled widely and spoke frequently. The long-continued depression and increasing unemployment was too heavy a burden for the party to overcome, and in the election of November President Hoover and the Republicans were overwhelmingly defeated.

Chronology

1874. *Aug. 10.* Born at West Branch, Iowa.
1895. Graduated from Leland Stanford, Jr., University.
1899. *Feb. 11.* Married Lou Henry, of Monterey, Calif.
1913–1914. Chairman, American Relief Commission, London.
1914–1915. Chairman, Commission for Relief in Belgium.
1915–1919. United States Food Administrator.
1917–1919. Member of War Trade Council.
1921. *March 5.* Appointed Secretary of Commerce.
1928. *June 14.* Nominated for president.
1929. *March 4.* Inaugurated president of United States.
1932. Defeated for re-election.

FRANKLIN DELANO ROOSEVELT

Thirty-second President (1933-   )

Franklin Delano Roosevelt was born in Hyde Park, New York, January 30, 1882. His father, James R. Roosevelt, a lawyer and vice-president of the Delaware and Hudson Railroad, lived most of the time at Hyde Park, a country estate operated as a model farm. On this the boy learned to hunt and ride and came in active contact with the problems of agriculture. From his mother, Sara Delano, the daughter of a shipowner, he may have inherited his love for the sea. This he had ample opportunity to gratify, both in sailing on the Hudson River and at the family summer place at Campello. So expert did he become in handling vessels that later, as assistant secretary of the Navy, he was able to pilot a destroyer through a strait deemed unnavigable by the naval officers. He prepared for college at the Groton School, Massachusetts, and was only prevented from running away and enlisting in the Spanish-American War by an attack of illness. He entered Harvard College in 1900 where he took an active part in athletics and student activities, being one of the editors of *The Crimson,* the daily college paper. He completed the course with Phi Beta Kappa rank and received his A.B. in 1904. From 1904 to 1907 he attended the Law School at Columbia University. He married his sixth cousin, Anna Eleanor Roosevelt, March 17, 1905. He was admitted to the bar of New York State in 1907 and practiced with the firm of Carter, Ledyard, and Milburn.

In 1910 he was asked to accept the Democratic nomination for State Senator from Dutchess County, which was considered a Republican stronghold. After a vigorous campaign, he was elected. He moved his family to Albany and took a house which became the unofficial headquarters for a small but active group of progressive Democrats. His outstanding achievement was the preventing of the election of William Sheehan, the Tammany candidate for the United States Senate, and forcing the election of James A. O'Gorman, a satisfactory compromise candidate. His first term as State Senator was marked with such independence that he had no difficulty in being re-elected. Although not a delegate to the Democratic Convention of 1912, he attended as an ardent supporter of Woodrow Wilson.

Upon Wilson's inauguration, he was appointed Assistant Secretary of the Navy, in charge of supplies, navy yards, and personnel. He was remarkably successful in reorganizing the work of the navy yards. Foreseeing the possible entrance of the United States into the World War, he aimed to place the Department on a satisfactory basis. During the War he handled with great success the problems of civilian labor in the navy yards and in the industries contributing to naval supplies. In purely naval affairs, he showed his versatility in the establishment of the "North Sea Barrage" and

in his insistence upon the construction of a large number of submarine chasers which were able to cross the ocean under their own power.

Although urged to run for governor of New York in 1918, he remained in office, liquidating many of the problems connected with the War and the disposal of surplus naval supplies. He attended the Democratic Convention of 1920 where he nominated Alfred E. Smith as Democratic presidential candidate and he himself was selected by Smith as vice-presidential candidate on the Cox-Roosevelt ticket. During the campaign he traveled extensively and took philosophically the defeat of the ticket. He retired to practice law in New York City and was stricken with poliomyelitis which left him with partially paralyzed legs. He took an active part in the Democratic Convention of 1924, again in vain urging the nomination of Alfred E. Smith. In the Democratic Convention of 1928 he was successful in his efforts and Governor Smith was nominated.

At the urgent request of Governor Smith, Roosevelt consented to accept the Democratic nomination for the governorship of New York. Although Hoover and the Republicans carried New York for the presidency, Roosevelt was elected governor by a substantial majority. Two years later he was re-elected by the unprecedented plurality of 725,000. In his two terms as governor, Roosevelt was faced with a Republican Legislature which was unsympathetic if not opposed to his proposals. As governor, he showed an insight and understanding of state problems, particularly those connected with agriculture and state institutions. He showed sympathy with the unfortunate and the unemployed and pushed through a bill for old-age pensions and large appropriations for unemployment relief.

As governor of New York it was inevitable that he should be considered a candidate for the Democratic presidential nomination. Through the skillful work of his friends and political advisers he was either first or second choice in those States where primaries or pre-conventions were held. In fact he entered the Convention with a majority, although not the two-thirds majority necessary for the nomination. That necessary two-thirds majority was assured by the withdrawal of Speaker Garner and the votes of the delegates from Texas and California. Not waiting for formal notification, he flew from Albany to Chicago, where he formally accepted the nomination and pledged his support to the Democratic platform. During the campaign, he traveled continuously, visiting New England and the western coast as well as the Middle States. His campaign speeches on farm relief, revision of the tariff, railroads, and financial problems, while proposing little that was definite or novel, were shrewdly framed, carefully thought out, pleasantly delivered, and made a wide appeal.

President Roosevelt's inauguration came at a critical period. Throughout the country many banks had been closed and a general financial collapse was feared. In a simple and straightforward inaugural address, the President asserted that there was nothing to fear but fear; he promised to drive the money changers from the temple, and courageously faced the threatening situation. On March 6 he found it necessary to issue a proclamation closing temporarily all the banks of the United States and to summon a special session of Congress to deal with the situation.

The "Hundred Days" of the special session of Congress were remarkable. In few congresses has presidential leadership been so openly manifested and successfully exercised. Practically all of the significant legislation was inspired from the White House and passed in a form acceptable to the President. This legislation was remarkable in another respect: it delegated to the President power to act with discretion, rather than under prescribed specific methods. This was strikingly shown in the Farm Relief Bill, which authorized the President at his discretion to issue federal credits or unsecured paper currency or to devaluate the dollar. No American President has ever received such a mark of confidence, nor has any Congress divested itself to such an extent of legislative control over important matters.

The desperate situation of agriculture, finance, and industry evidently convinced the President that orthodox remedies would not be effective. He took counsel rather from economic theorists and frank advocates of social reform and social control than from politicians, bankers, and industrialists of the traditional school of political and economic thought. He frankly admitted that many of his measures were experimental and unorthodox as judged by previous standards; but he asserted the necessity of meeting the unusual situation with unusual means. Should his remedies prove effective and remain in legal force, the economic and industrial system of the United States will be profoundly changed and the sphere of government control vastly extended.

Even in the crowded days of the session of Congress, the President found time and opportunity to send messages to the heads of the nations assembled at the disarmament conference urging the elimination of offensive weapons, and suggesting that defensive war should be confined to the territory of the country involved, while all action beyond the boundaries of a nation should be regarded as offensive. In the international economic conference held at London, the President's course was sharply criticized in that he refused to assent to measures for currency stabilization and apparently embraced the doctrine of economic nationalism. In November, 1933, the President reversed the policy of his four immediate predecessors and recognized the government of Soviet Russia, receiving from it guarantees against official propaganda in the United States, and protection for the rights of American citizens in Russia, and for the practice of their religious beliefs.

During the session of Congress, and frequently during the first year of his administration, President Roosevelt appealed to the people by means of addresses over the radio. Although these addresses dealt with such difficult problems as banking and currency, the President's style was one of simple frankness and clear exposition. By means of these appeals to the people he revived courage and retained the popular support which had been his since his inauguration.

Chronology

1882. *Jan. 30.* Born at Hyde Park, New York.
1904. Graduated from Harvard College.
1904–1907. Attended Columbia University Law School.
1905. *March 17.* Married Anna Eleanor Roosevelt.
1910–*March 17,* **1913.** Member of New York State Senate.
1913–1920. Assistant Secretary of the Navy.
1920. Democratic candidate for vice-president.
1929–1933. Twice governor of New York.
1933. *March 4.* Inaugurated president of the United States.

HISTORIC BUILDINGS

1. WASHINGTON'S HOME
MT. VERNON, VA.

2. JEFFERSON'S HOME
MONTICELLO, VA.

3. PAUL REVERE HOUSE
BOSTON, MASS.

4. FANEUIL HALL
BOSTON, MASS.

5. OLD STATE HOUSE
BOSTON, MASS.

6. SANTA BARBARA MISSION
SANTA BARBARA, CALIF.

7. LONGFELLOW HOUSE
CAMBRIDGE, MASS.

8. THE ALAMO
SAN ANTONIO, TEXAS

9. WASHINGTON'S HEADQUARTERS
NEWBURGH, N. Y.

HISTORIC BUILDINGS

1. LEE MANSION
ARLINGTON, VA.

2. INDEPENDENCE HALL
PHILADELPHIA, PA.

3. WILLIAM PENN HOUSE
PHILADELPHIA, PA.

4. HOUSE OF SEVEN GABLES
SALEM, MASS.

5. OLD COURT HOUSE
WILLIAMSBURG, VA.

6. BETSY ROSS HOUSE
PHILADELPHIA, PA.

7. CONCEPTION MISSION
SAN ANTONIO, TEXAS

8. OLD SOUTH CHURCH
BOSTON, MASS.

(The following is a literal print of the Constitution of the United States as issued by the Department of State. In text, spelling, capitalization, and punctuation it is an exact copy of the original document. The sections that were temporary provisions or that have been entirely superseded by Amendments are herewith shown in italic type; all numbers of clauses (or paragraphs) and Articles not indicated in the original text, and other interpolated matter, are enclosed in square brackets, [ ]. The parts of the Constitution that have been extended or otherwise modified by Amendments are pointed out by footnotes, which also contain the dates of the proclamation of Amendments and other explanations.)

THE CONSTITUTION

OF THE

UNITED STATES OF AMERICA

[Submitted September 17, 1787; in force April 30, 1789.]

We the People of the United States, in Order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defence, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America.

Article. I.

Section. 1. All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.

Section. 2. [1.] The House of Representatives shall be composed of Members chosen every second Year by the People of the several States, and the Electors in each State shall have the Qualifications requisite for Electors of the most numerous Branch of the State Legislature.[1]

[2.] No Person shall be a Representative who shall not have attained to the Age of twenty five Years, and been seven Years a Citizen of the United States, and who shall not, when elected, be an Inhabitant of that State in which he shall be chosen.

[3.] Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers, *which shall be determined by adding to the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three fifths of all other Persons.*[2] The actual Enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner as they shall by Law direct. The Number of Representatives shall not exceed one for every thirty Thousand, but each State shall have at Least one Representative; *and until such enumeration shall be made, the State of New Hampshire shall be entitled to chuse three, Massachusetts eight, Rhode-Island and Providence Plantations one, Connecticut five, New-York six, New Jersey four, Pennsylvania eight, Delaware one, Maryland six, Virginia ten, North Carolina five, South Carolina five, and Georgia three.*[3]

[4.] When vacancies happen in the Representation from any State, the Executive Authority thereof shall issue Writs of Election to fill such Vacancies.

[5.] The House of Representatives shall chuse their Speaker and other Officers; and shall have the sole Power of Impeachment.

Section. 3. [1.] The Senate of the United States shall be composed of two Senators from each State, *chosen by the Legislature thereof, for six Years; and each Senator shall have one Vote.*[4]

[2.] Immediately after they shall be assembled in Consequence of the first Election, they shall be divided as equally as may be into three Classes. The Seats of the Senators of the first Class shall be vacated at the Expiration of the second Year, of the second Class at the Expiration of the fourth Year, and of the third Class at the Expiration of the sixth Year, so that one third may be chosen every second Year; and if Vacancies happen by Resignation, or otherwise, during the Recess of the Legislature of any State, the Executive thereof may make temporary Appointments until the next Meeting of the Legislature, which shall then fill such Vacancies.[5]

[3.] No Person shall be a Senator who shall not have attained to the Age of thirty Years, and been nine Years a Citizen of the United States, and who shall not, when elected, be an Inhabitant of that State for which he shall be chosen.

[4.] The Vice President of the United States shall be President of the Senate, but shall have no Vote, unless they be equally divided.

[5.] The Senate shall chuse their other Officers, and also a President pro tempore, in the Absence of the Vice President, or when he shall exercise the Office of President of the United States.

[6.] The Senate shall have the sole Power to try all Impeachments. When sitting for that Purpose, they shall be on Oath or Affirmation. When the President of the United States is tried, the Chief Justice shall preside: And no Person shall be convicted without the Concurrence of two thirds of the Members present.

[7.] Judgment in Cases of Impeachment shall not extend further than to removal from Office, and disqualification to hold and enjoy any Office of honor, Trust or Profit under the United States: but the Party convicted shall nevertheless be liable and subject to Indictment, Trial, Judgment and Punishment, according to Law.

Section. 4. [1.] The Times, Places and Manner of holding Elections for Senators and Representatives, shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by Law make or alter such Regulations, except as to the Places of chusing Senators.

[2.] *The Congress shall assemble at least once in every Year, and such Meeting shall be on the first Monday in December, unless they shall by Law appoint a different Day.*[6]

Section. 5. [1.] Each House shall be the Judge of the Elections, Returns and Qualifications of its own Members, and a Majority of each shall constitute a Quorum to do Business; but a smaller Number may adjourn from day to day, and may be authorized to compel the Attendance of absent Members, in such Manner, and under such Penalties as each House may provide.

[2.] Each House may determine the Rules of its Proceedings, punish its Members for disorderly Behaviour, and, with the Concurrence of two thirds, expel a Member.

[3.] Each House shall keep a Journal of its Proceedings, and from time to time publish the same, excepting such Parts as may in their Judgment require Secrecy; and the Yeas and Nays of the Members of either House on any question shall, at the Desire of one fifth of those Present, be entered on the Journal.

[4.] Neither House, during the Session of Congress, shall, without the Consent of the other, adjourn for more than three days, nor to any other Place than that in which the two Houses shall be sitting.

Section. 6. [1.] The Senators and Representatives shall receive a Compensation for their Services, to be ascertained by Law, and paid out of the Treasury of the United States. They shall in all Cases, except Treason, Felony and Breach of the Peace, be privileged from Arrest during their Attendance at the Session of their respective Houses, and in going to and returning from the same; and for any Speech or Debate in either House, they shall not be questioned in any other Place.

[2.] No Senator or Representative shall, during the Time for which he was elected, be appointed to any civil Office under the Authority of the United States, which shall have been created, or the Emoluments whereof shall have been encreased during such time; and no Person holding any Office under the United States, shall be a Member of either House during his Continuance in Office.

Section. 7. [1.] All Bills for raising Revenue shall originate in the House of Representatives; but the Senate may propose or concur with Amendments as on other Bills.

[2.] Every Bill which shall have passed the House of Representatives and the Senate, shall, before it become a Law, be presented to the President of the United States; If he approve he shall sign it, but if not he shall return it, with his Objections to that House in which it shall have originated, who shall enter the Objections at large on their Journal, and proceed to reconsider it. If after such Reconsideration two thirds of that House shall agree to pass the Bill, it shall be sent, together with the Objections, to the other House, by which it shall likewise be reconsidered, and if approved by two thirds of that House, it shall become a Law. But in all such Cases the Votes of both Houses shall be determined by yeas and Nays, and the Names of the Persons voting for and against the Bill shall be entered on the Journal of each House respectively. If any Bill shall not be returned by the President within ten Days (Sundays excepted) after it shall have been presented to him, the Same shall be a Law, in like Manner as if he had signed it, unless the Congress by their Adjournment prevent its Return, in which Case it shall not be a Law.

[3.] Every Order, Resolution, or Vote to which the Concurrence of the Senate and House of Representatives may be necessary (except on a question of Adjournment) shall be presented to the President of the United States; and before the Same shall take Effect, shall be approved by him, or being disapproved by him, shall be repassed by two thirds of the Senate and House of Representatives, according to the Rules and Limitations prescribed in the Case of a Bill.

Section. 8. The Congress shall have Power [1.] To lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defence and general Welfare of the United States; but all Duties, Imposts and Excises shall be uniform throughout the United States;

[2.] To borrow Money on the credit of the United States;

[3.] To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes;

[4.] To establish an uniform Rule of Naturalization, and uniform Laws on the subject of Bankruptcies throughout the United States;

[5.] To coin Money, regulate the Value thereof, and of foreign Coin, and fix the Standard of Weights and Measures;

[6.] To provide for the Punishment of counterfeiting the Securities and current Coin of the United States;

[7.] To establish Post Offices and post Roads;

[8.] To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries;

[9.] To constitute Tribunals inferior to the supreme Court;

[10.] To define and punish Piracies and Felonies committed on the high Seas, and Offences against the Law of Nations;

[11.] To declare War, grant Letters of Marque and Reprisal, and make Rules concerning Captures on Land and Water;

[12.] To raise and support Armies, but no Appropriation of Money to that Use shall be for a longer Term than two Years;

[13.] To provide and maintain a Navy;

[14.] To make Rules for the Government and Regulation of the land and naval Forces;

[15.] To provide for calling forth the Militia to execute the Laws of the Union, suppress Insurrections and repel Invasions;

[16.] To provide for organizing, arming, and disciplining, the Militia, and for governing such Part of them as may be employed in the Service of the United States, reserving to the States respectively, the Appointment of the Officers, and the Authority of training the Militia according to the discipline prescribed by Congress;

[17.] To exercise exclusive Legislation in all Cases whatsoever, over such District (not exceeding ten Miles square) as may, by Cession of particular States, and the Acceptance of Congress, become the Seat of the Government of the United States, and to

[1] Modified by XIVth, XVth, and XIXth Amendments.
[2] Superseded by XIVth Amendment.
[3] Temporary clause.
[4] Superseded by XVIIth Amendment.
[5] Modified by XVIIth Amendment.
[6] Superseded by XXth Amendment.

when ratified by three-fourths of the legislatures of the several states, shall be valid to all intents and purposes, as part of the said constitution, to wit:

[ARTICLE XII.]

The Electors shall meet in their respective states, and vote by ballot for President and Vice-President, one of whom, at least, shall not be an inhabitant of the same state with themselves; they shall name in their ballots the person voted for as President, and in distinct ballots the person voted for as Vice-President, and they shall make distinct lists of all persons voted for as President, and of all persons voted for as Vice-President, and of the number of votes for each, which lists they shall sign and certify, and transmit sealed to the seat of the government of the United States, directed to the President of the Senate; — The President of the Senate shall, in the presence of the Senate and House of Representatives, open all the certificates and the votes shall then be counted; — The person having the greatest number of votes for President, shall be the President, if such number be a majority of the whole number of Electors appointed; and if no person have such majority, then from the persons having the highest numbers not exceeding three on the list of those voted for as President, the House of Representatives shall choose immediately, by ballot, the President. But in choosing the President, the votes shall be taken by states, the representation from each state having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the states, and a majority of all the states shall be necessary to a choice. And if the House of Representatives shall not choose a President whenever the right of choice shall devolve upon them, before the fourth day of March next following, then the Vice-President shall act as President, as in the case of the death or other constitutional disability of the President. — The person having the greatest number of votes as Vice-President, shall be the Vice-President, if such number be a majority of the whole number of Electors appointed, and if no person have a majority, then from the two highest numbers on the list, the Senate shall choose the Vice-President; a quorum for the purpose shall consist of two-thirds of the whole number of Senators, and a majority of the whole number shall be necessary to a choice. But no person constitutionally ineligible to the office of President shall be eligible to that of Vice-President of the United States.[23]

NATH^L MACON Speaker of the House of Representatives.
A. BURR Vice-President of the United States, and President of the Senate.

Attest —
JOHN BECKLEY, . . .Clerk of the House of Representatives.
SAM. A. OTIS Secretary of the Senate.

Thirty-Eighth Congress of the United States of America;
At the — Second — Session,
Begun and held at the City of Washington, on Monday, the fifth — day of December, one thousand eight hundred and sixty-four.

A RESOLUTION

Submitting to the legislatures of the several States a proposition to amend the Constitution of the United States.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, (two-thirds of both houses concurring), That the following article be proposed to the legislatures of the several States as an amendment to the Constitution of the United States, which, when ratified by three-fourths of said Legislatures, shall be valid, to all intents and purposes, as a part of the said Constitution, namely:

ARTICLE XIII.

Section 1. Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction. Section. 2. Congress shall have power to enforce this article by appropriate legislation.[24]

SCHUYLER COLFAX
Speaker of the House of Representatives.
H. HAMLIN
Vice President of the United States.
and President of the Senate.

Approved, February 1. 1865. ABRAHAM LINCOLN

I certify that this Resolution did originate in the Senate

J. W. FORNEY
Secretary

Thirty-ninth Congress of the United States, at the first Session, begun and held at the City of Washington, in the District of Columbia, on Monday the fourth day of December, one thousand eight hundred and sixty-five.

Joint Resolution proposing an amendment to the Constitution of the United States.

Be it resolved by the Senate and House of Representatives of the United States of America in Congress assembled, (two-thirds of both Houses concurring,) That the following article be proposed to the legislatures of the several States as an amendment to the Constitution of the United States, which, when ratified by three-fourths of said legislatures, shall be valid as part of the Constitution, namely:

ARTICLE XIV.

Section 1. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

Section 2. Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed. But when the right to vote at any election for the choice of electors for President and Vice President of the United States, Representatives in Congress, the Executive and Judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion, or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State.

Section 3. No person shall be a Senator or Representative in Congress, or elector of President and Vice President, or hold any office, civil or military, under the United States, or under any State, who, having previously taken an oath, as a member of Congress, or as an officer of the United States, or as a member of any State legislature, or as an executive or judicial officer of any State, to support the Constitution of the United States, shall have engaged in insurrection or rebellion against the same, or given aid or comfort to the enemies thereof. But Congress may by a vote of two-thirds of each House, remove such disability.

Section 4. The validity of the public debt of the United States, authorized by law, including debts incurred for payment of pensions and bounties for services in suppressing insurrection or rebellion, shall not be questioned. But neither the United States nor any State shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the United States, or any claim for the loss or emancipation of any slave; but all such debts, obligations and claims shall be held illegal and void.

Section 5. The Congress shall have power to enforce, by appropriate legislation, the provisions of this article.[25]

SCHUYLER COLFAX
Speaker of the House of Representatives.
LA FAYETTE S. FOSTER,
President of the Senate pro tempore.

Attest.
EDW^D M^CPHERSON.
Clerk of the House of Representatives.
J. W. FORNEY
Secretary of the Senate.

Fortieth Congress of the United States of America;
At the third Session,
Begun and held at the city of Washington, on Monday, the seventh day of December, one thousand eight hundred and sixty-eight.

A RESOLUTION

Proposing an amendment to the Constitution of the United States.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, (two-thirds of both Houses concurring) That the following article be proposed to the legislatures of the several States as an amendment to the Constitution of the United States, which, when ratified by three-fourths of said legislatures shall be valid as part of the Constitution, namely:

ARTICLE XV.

Section 1. The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of race, color, or previous condition of servitude. ——

Section 2. The Congress shall have power to enforce this article by appropriate legislation. ——[26]

SCHUYLER COLFAX
Speaker of the House of Representatives.
B. F. WADE
President of the Senate pro tempore.

Attest:
EDW^D M^CPHERSON
Clerk of House of Representatives.
GEO. C. GORHAM
Secy of Senate U. S.

S. J. Res. 40.

Sixty-first Congress of the United States of America;
At the First Session,
Begun and held at the City of Washington on Monday, the fifteenth day of March, one thousand nine hundred and nine.

JOINT RESOLUTION

Proposing an amendment to the Constitution of the United States.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled (two-thirds of each House concurring therein), That the following article is proposed as an amendment to the Constitution of the United States, which, when ratified by the legislatures of three-fourths of the several States, shall be valid to all intents and purposes as a part of the Constitution:

ARTICLE XVI.

"The Congress shall have power to lay and collect taxes on incomes, from whatever source derived, without apportionment among the several States, and without regard to any census or enumeration."[27]

J G CANNON
Speaker of the House of Representatives.
J S SHERMAN
Vice-President of the United States and President of the Senate.

Attest:
A McDOWELL
Clerk of the House of Representatives.
CHARLES G. BENNETT
Secretary
By HENRY H. GILFRY
Chief Clerk

I certify that this Joint Resolution originated in the Senate.

CHARLES G. BENNETT
Secretary.
By HENRY H. GILFRY
Chief Clerk

H. J. Res. 39.

Sixty-second Congress of the United States of America;
At the Second Session,
Begun and held at the City of Washington on Monday, the fourth day of December, one thousand nine hundred and eleven.

JOINT RESOLUTION

Proposing an amendment to the Constitution providing that Senators shall be elected by the people of the several States.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled (two-thirds of each House concurring therein), That in lieu of the first paragraph of section three of Article I of the Constitution of the United States,

[23] The XIIth Amendment, proposed in lieu of the original third paragraph of section 1 of Article II, was declared in a proclamation of the Secretary of State, dated September 25, 1804, to have been ratified by three fourths of the States

[24] The XIIIth Amendment was declared in a proclamation of the Secretary of State, dated December 18, 1865, to have been ratified by twenty-seven of the thirty-six States.

[25] The XIVth Amendment being declared by a concurrent resolution of Congress, adopted July 21, 1868, to have been ratified by "three fourths and more of the several States of the Union," the Secretary of State was required duly to promulgate the text. He accordingly issued a proclamation, dated July 28, 1868, declaring the proposed amendment to have been ratified by thirty of the thirty-six States.

[26] The XVth Amendment was declared in a proclamation of the Secretary of State, dated March 30, 1870, to have been ratified by twenty-nine of the thirty-seven States.

[27] The XVIth Amendment was declared in a proclamation of the Secretary of State, dated February 25, 1913, to have been ratified by thirty-eight of the forty-eight States.

and in lieu of so much of paragraph two of the same section as relates to the filling of vacancies, the following be proposed as an amendment to the Constitution, which shall be valid to all intents and purposes as part of the Constitution when ratified by the legislatures of three-fourths of the States:

[ARTICLE XVII.]

"The Senate of the United States shall be composed of two Senators from each State, elected by the people thereof, for six years; and each Senator shall have one vote. The electors in each State shall have the qualifications requisite for electors of the most numerous branch of the State legislatures.

"When vacancies happen in the representation of any State in the Senate, the executive authority of such State shall issue writs of election to fill such vacancies: *Provided*, That the legislature of any State may empower the executive thereof to make temporary appointments until the people fill the vacancies by election as the legislature may direct.

"This amendment shall not be so construed as to affect the election or term of any Senator chosen before it becomes valid as part of the Constitution."[28]

CHAMP CLARK,
Speaker of the House of Representatives.
J S SHERMAN
Vice President of the United States and President of the Senate.

I certify that this Joint Resolution originated in the House of Representatives.

SOUTH TRIMBLE
Clerk.

S. J. Res. 17.

Sixty-fifth Congress of the United States of America;
At the Second Session,
Begun and held at the City of Washington on Monday, the third day of December, one thousand nine hundred and seventeen.

JOINT RESOLUTION

Proposing an amendment to the Constitution of the United States.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled (two-thirds of each House concurring therein), That the following amendment to the Constitution be, and hereby is, proposed to the States, to become valid as a part of the Constitution when ratified by the legislatures of the several States as provided by the Constitution:

"ARTICLE [XVIII].

"SECTION 1. After one year from the ratification of this article the manufacture, sale, or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from the United States and all territory subject to the jurisdiction thereof for beverage purposes is hereby prohibited.

"SEC. 2. The Congress and the several States shall have concurrent power to enforce this article by appropriate legislation.

"SEC. 3. This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the legislatures of the several States, as provided in the Constitution, within seven years from the date of the submission hereof to the States by the Congress."[29]

CHAMP CLARK,
Speaker of the House of Representatives.
THOS. R. MARSHALL
Vice President of the United States and President of the Senate.

I certify that this Joint Resolution originated in the Senate.

JAMES M. BAKER
Secretary.

H. J. Res. 1.

Sixty-sixth Congress of the United States of America;
At the First Session,
Begun and held at the City of Washington on Monday, the nineteenth day of May, one thousand nine hundred and nineteen.

JOINT RESOLUTION

Proposing an amendment to the Constitution extending the right of suffrage to women.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled (two-thirds of each House concurring therein), That the following article is proposed as an amendment to the Constitution, which shall be valid to all intents and purposes as part of the Constitution when ratified by the legislatures of three-fourths of the several States.

"ARTICLE [XIX].

"The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of sex.

"Congress shall have power to enforce this article by appropriate legislation."[30]

F. H. GILLETT.
Speaker of the House of Representatives.
THOS. R. MARSHALL.
Vice President of the United States and President of the Senate.

I certify that this Joint Resolution originated in the House of Representatives.

WM. TYLER PAGE,
Clerk.

S. J. Res. 14

Seventy-second Congress of the United States of America;
At the First Session,
Begun and held at the City of Washington on Monday, the seventh day of December, one thousand nine hundred and thirty-one.

JOINT RESOLUTION

Proposing an amendment to the Constitution of the United States fixing the commencement of the terms of President and Vice President and Members of Congress and fixing the time of the assembling of Congress.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled (two-thirds of each House concurring therein), That the following amendment to the Constitution be, and hereby is, proposed to the States, to become valid as a part of said Constitution when ratified by the legislatures of the several States as provided in the Constitution:

"ARTICLE [XX].

"SECTION 1. The terms of the President and Vice President shall end at noon on the 20th day of January, and the terms of Senators and Representatives at noon on the 3d day of January, of the years in which such terms would have ended if this article had not been ratified; and the terms of their successors shall then begin.

"SEC. 2. The Congress shall assemble at least once in every year, and such meeting shall begin at noon on the 3d day of January, unless they shall by law appoint a differend day.

"SEC. 3. If, at the time fixed for the beginning of the term of the President, the President elect shall have died, the Vice President elect shall becomo President. If a President shall not have been chosen before the time fixed for the beginning of his term, or if the President elect shall have failed to qualify, then the Vice President elect shall act as President until a President shall have qualified; and the Congress may by law provide for the case wherein neither a President elect nor a Vice President elect shall have qualified, declaring who shall then act as President, or the manner in which one who is to act shall be selected, and such person shall act accordingly until a President or Vice President shall have qualified.

"SEC. 4. The Congress may by law provide for the case of the death of any of the persons from whom the House of Representatives may choose a President whenever the right of choice shall have devolved upon them, and for the case of the death of any of the persons from whom the Senate may choose a Vice President whenever the right of choice shall have devolved upon them.

"SEC. 5. Sections 1 and 2 shall take effect on the 15th day of October following the ratification of this article.

"SEC. 6. This article shall be inoperative unless it shall have heen ratified as an amendment to the Constitution by the legislatures of three-fourths of the several States within seven years from the date of its submission."[31]

JNO. N. GARNER
Speaker of the House of Representatives.
CHARLES CURTIS
Vice President of the United States and President of the Senate.

I certify that this Joint Resolution originated in the Senate.

EDWIN P. THAYER
Secretary.

WILLIAM PHILLIPS[32]

Acting Secretary of State of the United States of America.

To all whom these presents shall come, greeting:

KNOW YE, That the Congress of the United States, at the second session, Seventy-second Congress, begun and held at the city of Washington on Monday, the 5th day of December, in the year one thousand nine hundred and thirty-two, passed a joint resolution in the words and figures as follows:

To wit —

JOINT RESOLUTION

Proposing an amendment to the Constitution of the United States.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled (two-thirds of each House concurring therein), That the following article is hereby proposed as an amendment to the Constitution of the United States, which shall be valid to all intents and purposes as part of the Constitution when ratified by conventions in three-fourths of the several States:

ARTICLE [XXI].

Section 1. The Eighteenth Article of Amendment to the Constitution of the United States is hereby repealed.

Section 2. The transportation or importation into any State, Territory, or Possession of the United States for delivery or use therein of intoxicating liquors, in violation of the laws thereof, is hereby prohihited.

Section 3. This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by conventions in the several States, as provided in the Constitution, within seven years from the date of the submission hereof to the States by the Congress.

And, further, that it appears from official notices received at the Department of State that the amendment to the Constitution of the United States proposed as aforesaid has been ratified by conventions in the States of Arizona, Alabama, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Idaho, Illinois, Indiana, Iowa, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nevada, New Hampshire, New Jersey, New Mexico, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin and Wyoming.

And, further, that the States wherein conventions have so ratified the said proposed amendment constitute the requisite three-fourths of the whole number of States in the United States.

NOW, therefore, be it known that I, William Phillips, Acting Secretary of State of the United States, by virtue and in pursuance of Section 160, Title 5, of the United States Code, do hereby certify that the amendment aforesaid has become valid to all intents and purposes as a part of the Constitution of the United States.

In testimony whereof, I have hereunto set my hand and caused the seal of the Department of State to be affixed.

Done at the city of Washington this 5th day of December in the year of our Lord one thousand nine hundred and thirty-three.

WILLIAM PHILLIPS.

[28] The XVIIth Amendment was declared in a proclamation of the Secretary of State, dated May 31, 1913, to have been ratified by thirty-six of the forty-eight States.

[29] The XVIIIth Amendment was declared in a proclamation of the Acting Secretary of State, dated January 29, 1919, to have been ratified by thirty-six of the forty-eight States; proclaimed to be in force, Jan. 16, 1920. Repealed by the XXIst Amendment and its repeal proclaimed by President Roosevelt on December 5, 1933.

[30] The XIXth Amendment was declared in a proclamation of the Secretary of State, dated August 26, 1920, to have been ratified by three fourths of the whole number of States in the United States.

[31] The XXth Amendment was declared in a proclamation of the Secretary of State, dated February 6, 1933, to have been ratified by thirty-nine of the forty-eight States.

[32] The XXIst Amendment as declared in a proclamation of the Secretary of State, dated December 5, 1933; from the New York *Times* of December 6, 1933.

States. (With Territories and Possessions.*)	Place of Settlement and Date.	By whom Settled.	Capitals.	Date admitted.	Population in 1930.	Rank 1930.	Repr. in Congress.	Increase in Population, 1920–1930.	Miles of Railroad, Dec. 31, 1932.
Delaware	Wilmington, 1638	Swedes	Dover	Thirteen original States.	238,380	47	1	15,377	325
Pennsylvania	Philadelphia, 1682	English	Harrisburg		9,631,350	2	34	911,333	11,106
New Jersey	Elizabeth, 1664	English	Trenton		4,041,334	9	14	885,434	2,284
Georgia	Savannah, 1733	English	Atlanta		2,908,506	14	10	12,674	6,638
Connecticut	Wethersfield, 1635–1636	English	Hartford		1,606,903	29	6	226,272	976
Massachusetts	Plymouth, 1620	English	Boston		4,249,614	8	15	397,258	2,016
Maryland	St. Marys, 1634	English	Annapolis		1,631,526	28	6	181,865	1,438
South Carolina	Ashley River, 1670	English	Columbia		1,738,765	26	6	55,041	3,751
New Hampshire	Portsmouth, 1623	English	Concord		465,293	42	2	22,210	1,134
Virginia	Jamestown, 1607	English	Richmond		2,421,851	20	9	112,664	4,473
New York	New York, 1613	Dutch	Albany		12,588,066	1	45	2,202,839	8,261
North Carolina	Albemarle Sound, 1653	English	Raleigh		3,170,276	12	11	611,153	4,998
Rhode Island	Providence, 1636	English	Providence		687,497	37	2	83,100	205
Vermont	Brattleboro, 1724	English	Montpelier	1791	359,611	46	1	7,183	1,051
Kentucky	Boonesborough, 1775	English	Frankfort	1792	2,614,589	17	9	197,959	3,901
Tennessee	Watauga River, 1769	English	Nashville	1796	2,616,556	16	9	278,671	3,921
Ohio	Marietta, 1788	Americans	Columbus	1803	6,646,697	4	24	887,303	8,604
Louisiana	New Orleans, 1718	French	Baton Rouge	1812	2,101,593	22	8	303,084	4,607
Indiana	Vincennes, 1727	French	Indianapolis	1816	3,238,503	11	12	308,113	7,089
Mississippi	Biloxi, 1699	French	Jackson	1817	2,009,821	23	7	219,203	4,122
Illinois	Kaskaskia, 1700	French	Springfield	1818	7,630,654	3	27	1,145,374	12,411
Alabama	Mobile Bay, 1702	French	Montgomery	1819	2,646,248	15	9	298,074	5,226
Maine	Monhegan, 1622	English	Augusta	1820	797,423	35	3	29,409	2,181
Missouri	St. Genevieve, 1735?	French	Jefferson City	1821	3,629,367	10	13	225,312	7,914
Arkansas	Arkansas Post, 1685?	French	Little Rock	1836	1,854,482	25	7	102,278	4,782
Michigan	Sault Ste. Marie, 1668	French	Lansing	1837	4,842,325	7	17	1,173,913	7,832
Florida	St. Augustine, 1565	Spaniards	Tallahassee	1845	1,468,211	31	5	499,741	5,558
Texas	Matagorda Bay, 1685	French	Austin	1845	5,824,715	5	21	1,161,487	17,198
Iowa	Dubuque, 1833	French	Des Moines	1846	2,470,939	19	9	66,918	9,625
Wisconsin	Green Bay, 1745	French	Madison	1848	2,939,006	13	10	306,939	7,139
California	San Diego, 1769	Spaniards	Sacramento	1850	5,677,251	6	20	2,250,390	8,452
Minnesota	Fort Snelling, 1820	Americans	St. Paul	1858	2,563,953	18	9	176,828	8,709
Oregon	Astoria, 1811	Americans	Salem	1859	953,786	34	3	170,397	3,484
Kansas	Fort Leavenworth, 1827	Americans	Topeka	1861	1,880,999	24	7	111,742	9,283
West Virginia	Wheeling, 1769	English	Charleston	1863	1,729,205	27	6	265,504	4,109
Nevada	Carson City, 1849	Mormons	Carson City	1864	91,058	49	1	13,651	2,155
Nebraska	Bellevue, 1810?	Americans	Lincoln	1867	1,377,963	32	5	81,591	6,159
Colorado	Auraria, 1858	Americans	Denver	1876	1,035,791	33	4	96,162	4,956
North Dakota	Pembina, 1811	Americans	Bismarck	1889	680,845	38	2	33,973	5,275
South Dakota	Fort Pierre, 1817	Americans	Pierre	1889	692,849	36	2	56,302	4,220
Montana	Yellowstone River, 1809	Americans	Helena	1889	537,606	39	2	11,283‡	5,208
Washington	Tumwater, 1845	Americans	Olympia	1889	1,563,396	30	6	206,775	5,448
Idaho	Coeur d'Alene, 1842	French	Boise	1890	445,032	43	2	13,166	2,933
Wyoming	Fort Laramie, 1834	Americans	Cheyenne	1890	225,565	48	1	31,163	2,036
Utah	Salt Lake City, 1847	Mormons	Salt Lake City	1896	507,847	40	2	58,451	2,178
Oklahoma	In many places, 1889	Americans	Oklahoma City	1907	2,396,040	21	9	367,757	6,741
New Mexico	Santa Fe, 1605?	Spaniards	Santa Fe	1912	423,317	45	1	62,967	2,992
Arizona	Near Tucson, 1687?	Spaniards	Phoenix	1912	435,573	44	1	101,411	2,454
District of Columbia	....	English	Washington	1800	486,869	41	0	49,298	37
Totals (Continental United States)†					122,775,046	....	435	17,064,426	247,595
*Alaska	Kodiak Island, 1784	Russians	Juneau	1912	59,278	....	1**	4,242	750
*Hawaii	Honolulu, 1820	Americans	Honolulu	1900	368,336	....	1**	112,424	228
*Puerto Rico	1508	Spaniards	San Juan	....	1,543,913	....	1**	244,104	463
*Philippine Islands	Cebu, 1565	Spaniards	Manila	....	¶ 12,082,366	....	2**	§ 1,731,726	800

† The Census of 1930 enumerates also 89,453 persons in the military and naval service of the United States, stationed abroad. Including these and also Alaska, Hawaii, Puerto Rico, the Philippines, Guam (pop. 18,509), Panama Canal Zone (39,467), American Samoa (10,055), and the Virgin Islands of the United States (22,012), the total population of the United States and possessions in 1930 was 137,008,435. ‡ Decrease. ** Territorial delegates and resident commissioners have no vote in Congress. ¶ Est., 1929. § Increase, 1918 to 1929.

THE ONE HUNDRED LARGEST CITIES OF THE UNITED STATES IN 1930.

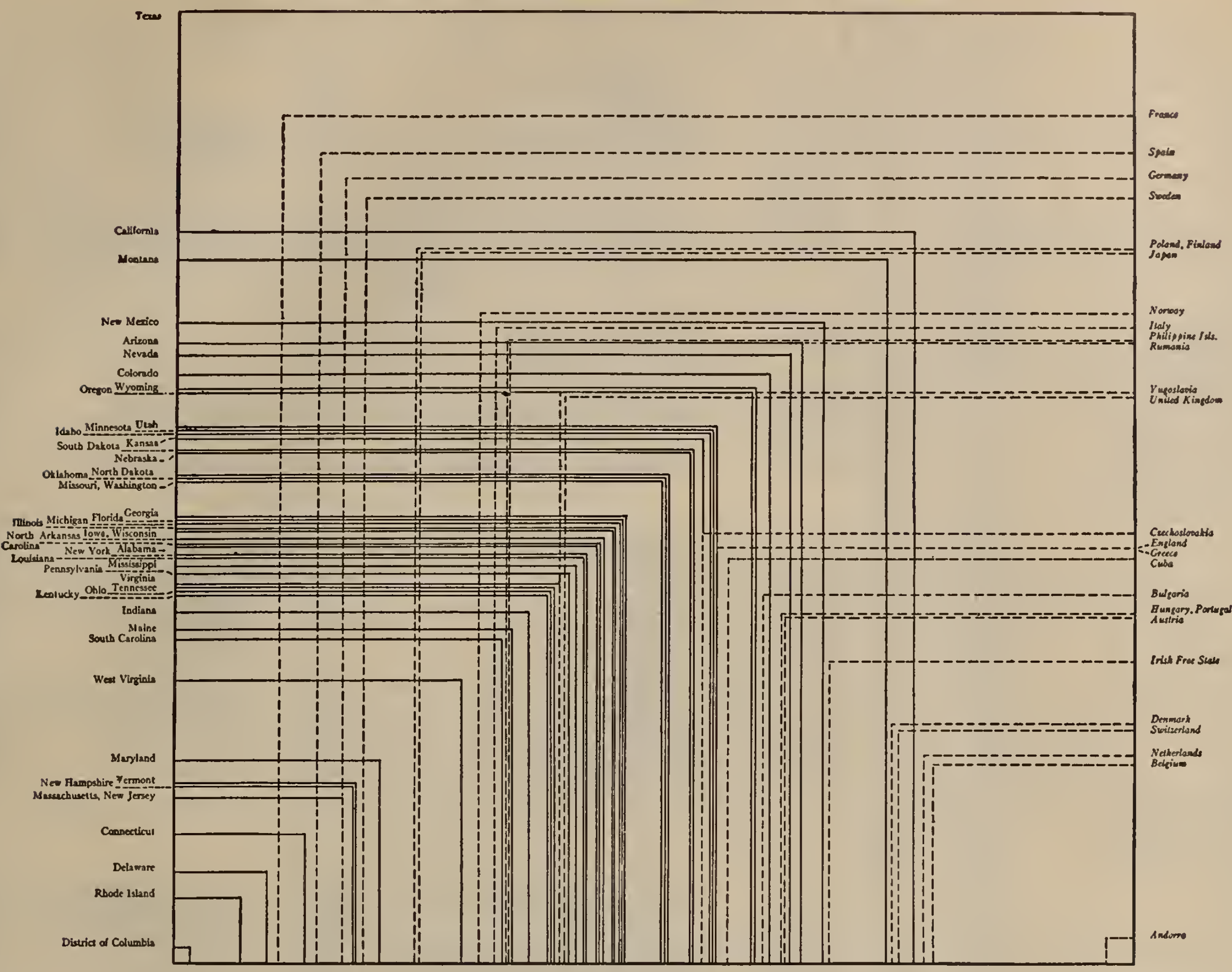
Rank 1930.	Cities.	Pop. 1930.	Pop. 1920.	Per cent Increase 1920–1930.	Settled.	Rank 1930.	Cities.	Pop. 1930.	Pop. 1920.	Per cent Increase 1920–1930.	Settled.	Rank 1930.	Cities.	Pop. 1930.	Pop. 1920.	Per cent Increase 1920–1930.	Settled.
1	New York, N. Y.	6,930,446	5,620,048	23.3	1613	35	Akron, Ohio	255,040	208,435	22.4	1825	69	Erie, Pa.	115,967	93,372	24.2	1795
2	Chicago, Ill.	3,376,438	2,701,705	25.0	1830	36	Memphis, Tenn.	253,143	162,351	55.9	1819	70	Spokane, Wash.	115,514	104,437	10.6	1873
3	Philadelphia, Pa.	1,950,961	1,823,779	7.0	1682	37	Providence, R. I.	252,981	237,595	6.5	1636	71	Fall River, Mass.	115,274	120,485	†4.3	1803*
4	Detroit, Mich.	1,568,662	993,678	57.9	1701	38	San Antonio, Texas	231,542	161,379	43.5	1714	72	Fort Wayne, Ind.	114,946	86,549	32.8	1794
5	Los Angeles, Calif.	1,238,048	576,673	114.7	1780	39	Omaha, Nebr.	214,006	191,601	11.7	1854	73	Elizabeth, N. J.	114,589	95,783	19.6	1664
6	Cleveland, Ohio	900,429	796,841	13.0	1796	40	Syracuse, N. Y.	209,326	171,717	21.9	1787	74	Cambridge, Mass.	113,643	109,694	3.6	1630
7	St. Louis, Mo.	821,960	772,897	6.3	1764	41	Dayton, Ohio	200,982	152,559	31.7	1796	75	New Bedford, Mass.	112,597	121,217	†7.1	1787*
8	Baltimore, Md.	804,874	733,826	9.7	1729	42	Worcester, Mass.	195,311	179,754	8.7	1713	76	Reading, Pa.	111,171	107,784	3.1	1748
9	Boston, Mass.	781,188	748,060	4.4	1630	43	Oklahoma City, Okla.	185,389	91,295	103.1	1889	77	Wichita, Kans.	111,110	72,217	53.9	1870
10	Pittsburgh, Pa.	669,817	588,343	13.8	1754	44	Richmond, Va.	182,929	171,667	6.6	1733	78	Miami, Fla.	110,637	29,571	274.1	1896
11	San Francisco, Calif.	634,394	506,676	25.2	1776	45	Youngstown, Ohio	170,002	132,358	28.4	1796	79	Tacoma, Wash.	106,817	96,965	10.2	1868
12	Milwaukee, Wis.	578,249	457,147	26.5	1835	46	Grand Rapids, Mich.	168,592	137,634	22.5	1833	80	Wilmington, Del.	106,597	110,168	†3.2	1638
13	Buffalo, N. Y.	573,076	506,775	13.1	1801	47	Hartford, Conn.	164,072	138,036	18.9	1635	81	Knoxville, Tenn.	105,802	77,818	36.0	1787
14	Washington, D. C.	486,869	437,571	11.3	1791	48	Fort Worth, Texas	163,447	106,482	53.5	1849	82	Peoria, Ill.	104,969	76,121	37.9	1819
15	Minneapolis, Minn.	464,356	380,582	22.0	1849	49	New Haven, Conn.	162,655	162,537	0.1	1638	83	Canton, Ohio	104,906	87,091	20.5	1805
16	New Orleans, La.	458,762	387,219	18.5	1718	50	Flint, Mich.	156,492	91,599	70.8	1820	84	South Bend, Ind.	104,193	70,983	46.8	1831
17	Cincinnati, Ohio	451,160	401,247	12.4	1788	51	Nashville, Tenn.	153,866	118,342	30.0	1780	85	Somerville, Mass.	103,908	93,091	11.6	1842*
18	Newark, N. J.	442,337	414,524	6.7	1666	52	Springfield, Mass.	149,900	129,614	15.7	1636	86	El Paso, Texas	102,421	77,560	32.0	1827
19	Kansas City, Mo.	399,746	324,410	23.2	1820	53	San Diego, Calif.	147,995	74,361	99.0	1769	87	Lynn, Mass.	102,320	99,148	3.2	1629
20	Seattle, Wash.	365,583	315,312	15.9	1852	54	Bridgeport, Conn.	146,716	143,555	2.2	1639	88	Evansville, Ind.	102,249	85,264	19.9	1817
21	Indianapolis, Ind.	364,161	314,194	15.9	1819	55	Scranton, Pa.	143,433	137,783	4.1	1840	89	Utica, N. Y.	101,740	94,156	8.1	1786
22	Rochester, N. Y.	328,132	295,750	10.9	1810	56	Des Moines, Iowa	142,559	126,468	12.7	1843	90	Duluth, Minn.	101,463	98,917	2.6	1853
23	Jersey City, N. J.	316,715	298,103	6.2	1801	57	Long Beach, Calif.	142,032	55,593	155.5	1890	91	Tampa, Fla.	101,161	51,608	96.0	1823
24	Louisville, Ky.	307,745	234,891	31.0	1778	58	Tulsa, Okla.	141,258	72,075	96.0	1887	92	Gary, Ind.	100,426	55,378	81.3	1905
25	Portland, Ore.	301,815	258,288	16.9	1845	59	Salt Lake City, Utah	140,267	118,110	18.8	1847	93	Lowell, Mass.	100,234	112,759	†11.1	1826*
26	Houston, Texas	292,352	138,276	111.4	1836	60	Paterson, N. J.	138,513	135,875	1.9	1792	94	Waterbury, Conn.	99,902	91,715	8.9	1674
27	Toledo, Ohio	290,718	213,164	19.6	1832	61	Yonkers, N. Y.	134,646	100,176	34.4	1650	95	Schenectady, N. Y.	95,692	88,723	7.9	1661
28	Columbus, Ohio	290,564	237,031	22.6	1797	62	Norfolk, Va.	129,710	115,777	12.0	1682	96	Sacramento, Calif.	93,750	65,908	42.2	1848
29	Denver, Colo.	287,861	256,491	12.2	1858	63	Jacksonville, Fla.	129,594	91,558	41.5	1816	97	Allentown, Pa.	92,563	73,502	25.9	1752
30	Oakland, Calif.	284,063	216,261	31.1	1852	64	Albany, N. Y.	127,412	113,344	12.4	1614	98	Bayonne, N. J.	88,979	76,754	15.9	1861*
31	St. Paul, Minn.	271,606	234,698	15.7	1838	65	Trenton, N. J.	123,356	119,289	3.4	1680	99	Wilkes-Barre, Pa.	86,626	73,833	17.3	1769
32	Atlanta, Ga.	270,366	200,616	34.8	1839	66	Kansas City, Kans.	121,857	101,177	20.4	1857	100	Rockford, Ill.	85,864	65,651	30.8	1834
33	Dallas, Texas	260,475	158,976	63.8	1841	67	Chattanooga, Tenn.	119,798	57,895	106.9	1836						
34	Birmingham, Ala.	259,678	178,806	45.2	1871	68	Camden, N. J.	118,700	116,309	2.1	1681						

* Date of separation from an older city or town.
† Decrease.

COMPARATIVE SIZE OF THE UNITED STATES AND FOREIGN COUNTRIES

(Scale, 100 miles to 1 inch)

Texas, 5.15 inches



The squares of which the left-hand lower corners coincide, and which are enclosed by solid lines, indicate the areas of the several States. Those arranged on the right of the diagram and bounded by broken lines, indicate the areas of foreign countries, and are inserted for the sake of comparison. Where two States are of nearly equal area they are of necessity represented by a single square, *e.g.*, Iowa and Wisconsin; also Massachusetts and New Jersey; etc. The areas given include inland water and are from the latest official figures.

States	Foreign Countries	Sq. Miles
1. Texas		265,896
	France	212,659
	Spain	194,800
	Germany	180,936
	Sweden	173,035
2. California		158,297
	Poland	149,960
	Finland	149,903
	Japan	147,593
3. Montana		146,997
	Norway	124,555
4. New Mexico		122,634
	Italy	119,710
	Philippine Islands	114,400
5. Arizona		113,956
	Rumania	113,889
6. Nevada		110,690
7. Colorado		103,948
8. Wyoming		97,914
9. Oregon		96,699
	Yugoslavia	95,983
	United Kingdon	94,196
10. Utah		84,990
11. Minnesota		84,682
12. Idaho		83,888
13. Kansas		82,158
14. South Dakota		77,615
15. Nebraska		77,520
16. North Dakota		70,837
17. Oklahoma		70,057
18. Missouri		69,420
19. Washington		69,127
20. Georgia		59,265
21. Florida		58,666
22. Michigan		57,980
23. Illinois		56,665
24. Iowa		56,147
25. Wisconsin		56,066
	Czechoslovakia	54,212
26. Arkansas		53,335
27. North Carolina		52,426
28 Alabama		51,998
	England	50,874
	Greece	50,257
29. New York		49,204
30. Louisiana		48,506
31. Mississippi		46,865
32. Pennsylvania		45,126
	Cuba	44,164
33. Virginia		42,627
34. Tennessee		42,022
35. Ohio		41,040
36. Kentucky		40,598
	Bulgaria	39,814
37. Indiana		36,354
	Hungary	35,902
	Portugal	35,490
38. Maine		33,040
	Austria	32,369
39. South Carolina		30,989
	Irish Free State	26,601
40. West Virginia		24,170
	Denmark	16,571
	Switzerland	15,940
	Netherlands	12,573
41. Maryland		12,327
	Belgium	11,755
42. Vermont		9,564
43. New Hampshire		9,341
44. Massachusetts		8,266
45. New Jersey		8,224
46. Connecticut		4,965
47. Delaware		2,370
48. Rhode Island		1,248
	Andorra	191
District of Columbia		70

If shown on the same scale employed in the above diagram, the length of the side of the square representing

Country	Area (sq. miles)	Would be (inches)
Russia (Union of Soviet Socialist Republics)	(Area, 8,241,921 sq. miles),	would be 28.7 inches.
China	(" 4,139,400 "),	" 20.3 "
United States, including all possessions	(" 3,738,395 "),	" 19.3 "
Canada	(" 3,690,043 "),	" 19.2 "
Brazil	(" 3,279,799 "),	" 18.1 "
United States, continental	(" 3,026,789 "),	" 17.4 "
Commonwealth of Australia	(" 2,974,581 "),	" 17.2 "
India	(Area, 1,808,679 sq. miles),	would be 13.4 inches.
Argentina	(" 1,153,119 "),	" 10.7 "
Mexico	(" 767,198 "),	" 8.8 "
Persia	(" 628,000 "),	" 7.9 "
Alaska	(" 586,400 "),	" 7.7 "
Union of South Africa	(" 472,347 "),	" 6.9 "
Colombia	(" 447,536 "),	" 6.7 "
Egypt	(" 383,000 "),	" 6.2 "
Turkey	(" 298,123 "),	" 5.5 "

RECENT STATISTICS OF VARIOUS NATIONS

Government	Area in Sq. Miles	Population	Capital Name	Capital Population	Ruler Name	Ruler Title	National Debt	Monetary Unit Name	Monetary Unit Value
ABYSSINIA (Ethiopia)	350,000	10,000,000	Addis Ababa	60,000	Haile Selassie I	*Emperor*		Maria Theresa dol.	$0.45,1
AFGHANISTAN	245,000	11,000,000	Kabul	80,000	Zahir Pasha	*King*		Afghani	0.36,5
ALBANIA	10,629	1,003,068	Tirana	30,806	Zog I	*King*		Franc	0.19,3
ARGENTINA	1,153,119	11,846,655	Buenos Aires	2,168,000	Agustín P. Justo	*President*	$3,735,293,000	Peso	0.96,5
AUSTRIA	32,369	6,534,481	Vienna	1,865,780	Wilhelm Miklas	*President*	500,000,000	Schilling	0.14,1
BELGIUM	11,755	8,130,000	Brussels	834,522	Leopold III	*King*	1,554,020,000	Belga	0.13,9
Belgian Congo	920,610	9,610,000	Léopoldville	41,000	Lt. Gen. A. Tilkens	*Governor-General*	66,216,000	Franc (Belgian)	0.02,8
Mandates	20,115	3,468,000	Usumbura						
BOLIVIA	514,155	2,911,283	Sucre La Paz	34,577 146,930	Daniel Salamanca	*President*	110,720,000	Boliviano	0.36,5
BRAZIL	3,275,510	41,477,827	Rio de Janeiro	1,468,621	Getulio Vargas	*President*	665,299,000	Milreis (1000 reis)	0.54,6
BRITISH EMPIRE	13,157,388	490,674,785	London	8,203,942	George V	*King of Great Britain, etc., and Emperor of India*	37,204,152,000	Pound	4.86,7
Great Britain	93,982	46,047,046							
England	50,874	37,789,738							
Wales	7,466	2,158,193							
Scotland	30,405	4,842,554	Edinburgh	438,998					
Northern Ireland	5,237	1,256,561	Belfast	425,156	Duke of Abercorn	*Governor*			
Irish Free State	26,601	2,971,992	Dublin	405,126	Donal Buckley	*Governor-General*		Pound	4.86,7
Indian Possessions	1,808,679	352,837,778	Delhi	447,442	Lord Willingdon	*Viceroy*	[9]4,403,102,000	Rupee	0.36,5
Other Asiatic Possessions	162,966	11,497,845							
Commonwealth of Australia	3,065,121	6,825,599	Canberra	2,572	Sir Isaac A. Isaacs	*Gov.-Gen.*	3,839,391,000	Pound	4.86,7
Dominion of New Zealand	104,015	1,503,179	Wellington	121,961	Baron Bledisloe	*Gov.-Gen.*	1,372,075,000	Pound	4.86,7
Dominion of Canada	3,690,043	10,376,786	Ottawa	126,872	The Earl of Bessborough	*Gov.-Gen.*	2,596,481,000	Dollar	1.00,0
Newfoundland and Labrador	161,100	281,549	St. John's	42,645	Sir David M. Anderson	*Governor*	86,180,000	Dollar	1.00,0
Guiana and Honduras	98,078	362,280							
Union of South Africa	472,347	8,045,000	Pretoria	84,000	The Earl of Clarendon	*Gov.-Gen.*	1,214,286,000	Pound	4.86,7
Other African Possessions	2,615,795	40,165,000							
Cyprus, Gibraltar, Malta	3,708	627,731							
Various Islands	24,563	2,261,000							
Mandates[1]	830,290	6,872,000							
BULGARIA	39,814	5,478,741	Sofia	213,002	Boris III	*King (Czar)*	197,313,000	Lev	0.00,7
CHILE	286,322	4,287,445	Santiago	712,533	Arturo Alessandri	*President*	615,129,000	Peso	0.12,2
CHINA	4,139,400	503,125,000	Nanking	561,443	Lin Sen	*President*	825,786,000	Dollar or yuan	0.46,1
COLOMBIA	447,536	7,851,000	Bogotá	235,421	Alfonso López	*President*	288,721,000	Peso	0.97,3
COSTA RICA	23,000	471,525	San José	50,580	Ricardo Jiménez Oreamuno	*President*	32,330,000	Colon	0.25,0
CUBA	44,164	3,962,344	Havana	584,893	Carlos Mendieta	*President*	158,933,000	Peso	1.00,0
CZECHOSLOVAKIA	54,212	14,726,158	Prague	848,081	Thomas G. Masaryk	*President*	1,123,769,000	Koruna	0.03,0
DENMARK	16,571	3,550,656	Copenhagen	617,069	Christian X	*King*	338,886,000	Krone	0.26,8
Colony (Greenland)	46,740	16,630							
DOMINICAN REPUBLIC	19,332	1,200,000	Santo Domingo	60,000	Gen. Rafael L. Trujillo Molina	*President*	16,594,000	Dollar	1.00,0
ECUADOR	175,000	2,500,000	Quito	91,641	José María V. Ibarra	*President*	26,444,000	Sucre	0.20,0
EGYPT	383,000	14,217,864	Cairo	1,064,567	Fuad I	*King*	441,921,000	Pound	4.94,3
ESTONIA	18,353	1,107,059	Tallinn	122,419	Konstantin Päts	*State Head*	[10]24,499,000	Kroon	0.26,8
FINLAND	149,903	3,634,047	Helsingfors	234,096	Pehr Evind Svinhufvud	*President*	87,492,000	Markka	0.02,5
FRANCE	212,659	41,834,923	Paris	2,891,020	Albert Lebrun	*President*	12,218,000,000	Franc	0.03,9
Algeria	847,552	6,553,451	Algiers	257,122	Jules Carde	*Gov.-Gen.*	42,885,000	Franc	0.03,9
Colonies in Asia	264,021	21,938,410							
Colonies in Africa	2,768,768	20,264,947							
Madagascar and islands	242,855	3,888,407							
Colonies in Oceania	8,720	93,165							
Colonies in America	35,813	546,102							
Mandates[2]	188,382	2,649,419							
GERMANY	180,936	62,410,619	Berlin	4,024,286	Gen. Paul von Hindenburg	*President*	4,912,399,000	Reichsmark	0.23,8
GREECE	50,257	6,204,684	Athens	459,211	Alexander Zaimis	*President*	548,847,000	Drachma	0.01,3
GUATEMALA	48,290	2,482,025	Guatemala	132,793	Gen. Jorge Ubico	*President*	17,481,000	Quetzal	1.00,0
HAITI	10,204	2,300,200	Port-au-Prince	79,797	Stenio Vincent	*President*	14,525,000	Gourde	0.20,0
HONDURAS	44,275	854,184	Tegucigalpa	34,372	Gen. Tiburcio Carías Andino	*President*	12,764,000	Lempira	0.50,0
HUNGARY	35,902	8,683,740	Budapest	1,004,699	Admiral Nicholas von Horthy	*Regent*	365,646,000	Pengö	0.17,5
ICELAND	39,709	100,117	Reykjavik	22,022	Christian X (of Denmark)	*King*	10,557,000	Krone	0.26,8
IRAQ (Mesopotamia)	177,148	2,849,282	Bagdad	300,000	Ghazi	*King*		Rupee	0.36,5
ITALY	119,710	41,176,671	Rome	1,008,083	Victor Emmanuel III	*King*	5,133,200,000	Lira	0.05,3
Dependencies	663,573	2,446,515							
JAPAN	147,593	64,450,000	Tokyo	2,070,529	Hirohito	*Emperor*	3,589,256,000	Yen	0.49,9
Dependencies	114,489	27,274,000							
Mandate	830	70,000							
LATVIA	25,395	1,900,045	Riga	377,917	Albert Kviesis	*President*	15,911,000	Lat	0.19,3
LIBERIA	43,000	1,250,000	Monrovia	10,000	Edwin Barclay	*President*	2,255,000	Dollar	1.00,0
LITHUANIA	21,489	2,392,983	Kaunas	92,446	Antanas Smetona	*President*	14,038,000	Lit	0.10,0
LUXEMBURG	999	299,782	Luxemburg	53,791	Charlotte	*Grand Duchess*	15,341,000	Franc (Belgian)	0.02,8
MEXICO	767,198	16,404,030	Mexico	615,367	Gen. Lázaro Cárdenas	*President*	447,493,000	Peso	0.49,9
MOROCCO	186,136	5,888,000	Rabat	53,106	Sidi Mohammed	*Sultan*	[11]37,950,000		
NETHERLANDS	12,573	7,935,565	The Hague	437,675	Wilhelmina	*Queen*	993,275,000	Gulden	0.40,2
Colonies	787,990	60,955,794							
NICARAGUA	51,660	750,000	Managua	[8]32,536	Juan Bautista Sacasa	*President*	2,887,000	Córdoba	1.00,0
NORWAY	124,555	2,814,194	Oslo	253,124	Haakon VII	*King*	409,132,000	Krone	0.26,8
PALESTINE	10,000	1,035,154	Jerusalem	90,407	Sir Arthur G. Wauchope	*High Commiss'r*		Pound	4.86,7
PANAMA	32,380	467,459	Panama	82,827	Harmodio Arias	*President*	33,694,000	Balboa	1.00,0
PARAGUAY	61,647	857,337	Asunción	100,000	Eusebio Ayala	*President*	6,372,000	Peso	0.96,5
PERSIA	628,000	10,000,000	Teheran	300,000	Riza Khan Pahlevi	*Shah*	9,393,000	Rial	0.24,3
PERU	532,047	6,147,000	Lima	272,742	Gen. Oscar R. Benavides	*President*	201,286,000	Sol	0.40,0
POLAND	149,960	32,132,936	Warsaw	1,178,914	Ignacy Moscicki	*President*	567,104,000	Zloty	0.11,2
PORTUGAL	35,490	6,655,000	Lisbon	594,390	Gen. Antonio Carmona	*President*	471,483,000	Escudo	0.04,4
Colonies	808,300	9,977,000							
RUMANIA	113,889	18,052,896	Bucharest	631,288	Carol II	*King*	1,075,957,000	Leu	0.00,6
RUSSIA[3]	8,241,921	161,006,200	Moscow	2,781,300	Viacheslav M. Molotov	*Pres. of Union Council of People's Commissars*	4,376,416,000	Chervonets	5.14,6
Soviet Russia (R.S.F.S.R.)	7,626,717	110,932,500							
Ukraine	174,201	31,403,200							
White Russia	48,751	5,246,400							
Transcaucasian Federation[4]	71,255	6,426,700							
Turkomen Soviet Republic[5]	189,603	1,137,900							
Uzbek Soviet Republic[5]	74,786	4,685,400							
Tajik	56,608	1,174,100							
SALVADOR, EL	13,176	1,459,578	San Salvador	96,447	Gen. Maximiliano H. Martínez	*President*	23,578,000	Colon	0.50,0
SAUDI ARABIA	800,000	4,500,000	Mecca Riyadh	130,000 35,000	Abdul-Aziz Ibn-Saud	*King*			
SIAM	200,234	11,506,207	Bangkok	931,170	Prajadhipok	*King*	54,778,000	Baht	0.44,2
SPAIN	194,800	23,656,300	Madrid	952,832	Niceto Alcalá Zamora	*President*	1,709,856,000	Peseta	0.19,3
African Possessions	133,596	1,029,000							
SWEDEN	173,035	6,162,446	Stockholm	514,333	Gustaf V	*King*	590,265,000	Krona	0.26,8
SWITZERLAND	15,940	4,066,400	Bern	111,783	Marcel Pilet-Golaz	*President*	942,918,000	Franc	0.19,3
SYRIA	58,000	2,628,150	Damascus	193,912	Damien Count de Martel	*High Commiss'r*		Pound	0.78,4
TURKEY	294,416	13,648,270	Angora	74,553	Mustafa Kemal Pasha	*President*	383,885,000	Piaster	0.04,4
UNITED STATES OF AMERICA	2,973,776	122,775,046[6]	Washington	486,869	Franklin D. Roosevelt	*President*	[12]22,538,672,000	Dollar	1.00,0
Alaska	586,400	59,278	Juneau	4,043	John W. Troy	*Governor*			
Hawaii	6,407	368,336	Honolulu		Lawrence M. Judd	*Governor*	32,405,000	Dollar	1.00,0
Panama Canal Zone	549	39,467			Col. Julian L. Schley	*Governor*			
Philippine Islands	114,400	12,604,100[7]	Manila	285,306	Frank Murphy	*Gov. General*	58,401,000	Peso	0.50,0
Puerto Rico	3,435	1,543,913	San Juan	114,715	Robert H. Gore	*Governor*	49,443,000	Dollar	1.00,0
Guam, Samoa, Virgin Is.	415	50,576							
URUGUAY	72,153	1,903,083	Montevideo	655,599	Gabriel Terra	*President*	265,841,000	Peso	1.03,4
VENEZUELA	352,051	3,026,878	Caracas	135,253	Gen. Juan Vincente Gómez	*President*	[13]5,112,000	Bolivar	0.19,3
YUGOSLAVIA	95,983	13,930,918	Belgrade	241,542	Alexander I	*King*	678,712,000	Dinar	0.01,8

[1] Not including Palestine. [2] Not including Syria. [3] Union of Soviet Socialist Republics. [4] Georgia, Azerbaijan, and Armenia. [5] Called also Turkmenistan and Uzbekistan. [6] Includes 89,453 in the U. S. Military and Naval service abroad. [7] Official estimate, 1930. [8] 1926 Census, before its destruction by earthquake, in 1931. [9] British India only. [10] Foreign debt only. [11] French Morocco only. [12] June 30, 1933. [13] Internal debt only.

SYNCHRONIZED HISTORICAL TABLE

FROM THE EARLIEST RECORDED HISTORY TO THE PRESENT TIME

I. Ancient Period: Earliest Times to 476 A.D.

B.C.	EUROPE	ASIA	AFRICA
4500		**4500.** Mesopotamian civilization in valley of the Tigris and Euphrates. Chinese civilization in the valley of the Hwang Ho.	**4500.** Egyptian civilization in the valley of the Nile.
3500		**3500–2900.** Sumerian ascendancy in the Mesopotamian region.	
3000	**3000–2500.** Copper and bronze culture in Crete and the Aegean area.	**2870–2500.** Semitic ascendancy, Mesopotamia. Sargon I; Naram-Sin. **2852–2738.** In China, rule of the legendary Fu-Hi; the beginning of social order, useful arts, civilized institutions.	**3400.** First Egyptian dynasty; Menes unites Upper and Lower Egypt.
2500	**2500–1850.** Greeks overcome Aegean peoples in peninsula; ahsorb Aegean culture; he-ginnings of city-states.	**2220–1926.** First Babylonian dynasty. Hammurabi's code of law.	**2840–2680.** Fourth Egyptian dynasty; age of the pyramid huilders. **2000–1788.** Twelfth Egyptian dynasty; great prosperity and splendor.
1850	**1850–1600.** High degree of civilization in Crete; transplanted to the mainland. **1350–1100.** Greeks settle on Aegean Islands and overrun western Asia Minor.	**1850–1630.** Era of Hebrew patriarchs, Ahraham, Isaac, and Jacoh. **1630–1200.** Sojourn of the children of Israel in Egypt. **1500.** India is revealed as already having a highly developed civilization. **1225.** Phoenicians already using alphahet.	**1580–1350.** Eighteenth dynasty; Thothmes III (1501–1447); greatest Egyptian power.
1200	**1193–1184.** Trojan War; Troy destroyed.	**1146–1123.** Reign of Nebuchadnezzar I of Babylon. **1123– 255.** Chow dynasty in China; feudal system. **1115–1102.** Tiglath-pileser I; period of Assyrian ascendancy begins. **1017– 970.** David, King of Israel, succeeded by Solomon (970–935). **1000.** Zoroaster (Zarathustra).	**1200–1090.** Beginning of decline of Egyptian power; Children of Israel, led hy Moses, leave Egypt and (1160) enter Canaan.

	CEN. AND SO. EUROPE	EASTERN EUROPE	ASIA	AFRICA
900		**900–700.** Age of the Homeric epics, the *Iliad* and the *Odyssey*.		**814.** Carthage founded.
750	**753.** Legendary date of the founding of Rome.	**750–460.** Rapid development of Greek civilization; vigorous colonizing movements; lyric poetry — Sappho and Pindar.	**722–721.** Fall of Samaria, and end of the Kingdom of Israel. **681–668.** Assyria annexes Egypt; period of Assyria's greatest extent of power.	
600	**600–500.** Etruscans the dominant people in Italy.	**621.** Draco codifies Athenian laws. **594.** Laws of Solon. **560.** Pisistratus becomes tyrant at Athens.	**600–500.** In China, cultural advance; Lao-Tse, and Taoism. Japanese contact. **586.** Nebuchadnezzar destroys Jerusalem; Jews captive at Babylon. **559–529.** Cyrus of Persia extends conquests.	**663–525.** Twenty-sixth Egyptian dynasty; cultural renaissance; revolt (655) against Assyrians.
500	**509.** Patrician commonwealth estahlished at Rome. **451–449.** Rule of the Decemviri in Rome.	**500–400.** Greek drama: Aeschylus, Sophocles, Euripides. **499–478.** Greco-Persian wars: Marathon (490); Thermopylae and Salamis (480); Mycale and Plataea (479). **478–431.** Athenian hegemony; Pericles (461–429), building of Parthenon (447–438). **431–404.** Peloponnesian War: Athens finally defeated overwhelmingly.	**551–478.** Confucius. **529–522.** Cambyses conquers Egypt. **522–485.** Darius I; Persian empire at its height. **480.** Gautama (Buddha). **464–424.** Artaxerxes I, ruler of Persia. **445.** Nehemiah in Jerusalem; promulgation of the Mosaic Law. **424–404.** Darius II, ruler of Persia.	**525.** Persia conquers Egypt; beginning of twenty-seventh (Persian) Egyptian dynasty. **459–454.** Greek expedition against Egypt; disaster for Athenians.
400	**343–290.** Samnite Wars. **342–270.** Epicurus, the philosopher.	**399.** Execution of Socrates at Athens. **347.** Death of Plato (h. 427). **342.** Aristotle, philosopher, at court of Philip of Macedon, tutor to Philip's son Alexander. **338.** Macedonian supremacy in Greece, under Philip. **334–323.** Alexander the Great and his conquests; Persia, Egypt, invasion of India; Alexander dies 323. Vast empire divided. **323.** Lysimachus, ruler of Thrace. Antipater, ruler of Macedonia in Europe.	**401.** Xenophon, Retreat of the Ten Thousand. **334–323.** Alexander's campaigns and conquests in western Asia; he reaches India. **312.** Seleucus Nicator makes Bahylon center of Seleucid Empire.	**332.** Alexander occupies Egypt; founds Alexandria. **323.** Ptolemy, one of Alexander's generals, receives Egypt; Ptolemaic dynasty (323-31 B.C.).

	EUROPE	ASIA	AFRICA
300	**275.** Romans gain undisputed supremacy in Italy. **264–146.** Punic Wars: Rome defeats Carthage; extends dominion and acquires provinces beyond Italy; hecomes supreme in the Mediterranean area. Second Punic War (218–201) notable for Hannihal's campaigns.	**255–206.** In China, the Tsin dynasty; building of the Great Wall. **250.** Arsaces revolts against the Seleucid Empire, estahlishes Parthian Empire.	**285–246.** Ptolemy II, Egypt; lihrary at Alexandria center of learning.
200	**200–168.** Rome involved in Greek wars; destroys Macedonian power. **146.** Roman power dominant throughout all of Greece. **143–133.** Roman campaigns in Spain.	**145–135.** Simon Maccahaeus, high priest at Jerusalem, wins Jewish independence. **139.** Parthians push into western Asia.	**146.** Carthage destroyed.
100	**70–49.** Decline of influence of Roman Senate; rise of authority of military commanders; extension of houndaries hy conquest, notahly hy Julius Caesar. **49.** Julius Caesar crosses the Ruhicon; invades Italy; defeats Pompey, his rival; holds supreme power; Caesar assassinated (44 B.C.). **44–31.** Octavianus, heir of Caesar, hy intrigue and war establishes his power. **31.** Octavianus defeats Antony and Cleopatra at Actium. **27.** Senate bestows title Augustus on Octavianus; end of Roman Republic.	**64.** Syria conquered by Rome. **63.** Jerusalem conquered hy Rome. **4.** Jesus, the Christ, is born.	**47.** Library at Alexandria burned. **31.** Cleopatra and Antony defeated by Octavianus; Cleopatra commits suicide; Egypt hecomes a Roman province.

A.D.	THE ROMAN EMPIRE	CENTRAL AND WESTERN ASIA
	27 B.C.–14 A.D. Augustan Age of Latin literature: Vergil, Horace, Ovid, Livy. Emperor Augustus reforms the administrative organization of the Empire. **14.** Death of the Emperor Augustus: Tiberius, his stepson, becomes Emperor. **46–120.** Plutarch. **79.** Herculaneum and Pompeii are destroyed by an eruption of Vesuvius.	**27.** John the Baptist begins his mission. **28–30** (*or* **31**). Christ teaches his gospel. **30** (*or* **31**). Christ is crucified. **35.** Conversion of Saul of Tarsus. **67.** Martyrdom of St. Paul. **70.** Titus partly destroys Jerusalem.
100	**96–180.** Period of the "five good emperors" — Nerva (96–98); Trajan (98–117), Hadrian (117–138), Antoninus Pius (138–161), Marcus Aurelius (161–180). **115.** Romans conquer Parthia; empire reaches greatest extent. The Silver Age of Latin literature: Tacitus, Pliny, Juvenal.	**115.** Parthian Empire conquered by Rome. **135.** Romans suhdue revolt in Judea. **162.** Parthians again invade Syria.
200	**235–284.** Disintegration of Roman Empire proceeds; poor administration, faulty economic organization, vast expenditures, army mutinies, and continuous attacks by the harbarians along the frontiers.	**227.** Ardashir overthrows the Parthian Empire, and founds the Sassanidae. **252–260.** Sapor I, King of Persia, occupies Armenia and overruns Syria.
300	**312.** Battle of Milvian Bridge; the Emperor Constantine is converted to Christianity. **325.** First Ecumenical Council of the Christian church convoked by Constantine at Nicaea; the Nicene Creed formulated. **364–395.** Roman Empire divided into Western Empire and Eastern Empire; Byzantium is capital of the Eastern Empire.	
400	**410.** Alaric and the Goths capture and sack Rome. **428.** Saint Augustine publishes his *De Civitate Dei*. **449–500.** Hengist and Horsa land (449) in England; Saxons and Jutes make settlements; era of the Heptarchy. **451.** Fourth Ecumenical Council, at Chalcedon; the Eutychian controversy. **455.** Genseric and the Vandals capture Rome. **476.** Odoacer, barbarian leader, assumes kingship of Roman dominions in the West; end of Western Roman Empire.	

II. Medieval Period: 477 A.D. to 1492

A.D.	WESTERN EUROPE	CENTRAL, SOUTHERN, AND EASTERN EUROPE
477	**486**. Clovis, King of the Franks, (481-511), destroys Roman power in Gaul.	**493**. Theodoric the Great establishes the Ostrogothic Kingdom in Italy. **527-565**. Justinian, Emperor of the Eastern Roman Empire; Justinian Code, Institutes, Digest; conquers (552) Italy and destroys the Ostrogothic Kingdom.
600	**597**. St. Augustine missionary among the Anglo-Saxons.	**590-604**. Gregory the Great, Pope.
700	**711-714**. Saracens (Mohammedans) conquer Spain. **732**. Battle of Poitiers; Charles Martel, the Frank, turns back the Saracens. **751**. Carolingian dynasty established among Franks; lasts until 911. **771-814**. Period of Charlemagne; unifies western and central Europe by his conquests; first Emperor of the Holy Roman Empire.	**668-675**. Siege of Byzantium (Constantinople) by Arabs; unsuccessful. **755**. Territories given to the Pope become basis of the Papal States in Italy.
800	**843**. Treaty of Verdun divides Charlemagne's empire; begins national history for Italy, France, and Germany. **871-899**. Alfred the Great, King of England; cultural development; Oxford Univ.	**800**. Charlemagne crowned by the Pope as successor to the Caesars. **862**. Rurik lays basis of Russian Empire. **893**. Magyars settle in the valley of the Tisza; nucleus of modern Hungary.
900	**912**. Height of Moorish power and culture in Spain. **987**. Founding of Capet dynasty in France.	**936**. Otto the Great, King of the Germans, crowned (962) Holy Roman Emperor. **997**. Venice dominant in the Mediterranean; era of the Doges.
1000	**1000**. Leif Ericsson discovers America. **1066**. Norman Conquest (Battle of Hastings) by William the Conqueror; the Domesday Book.	**1000**. Pope crowns St. Stephen King of Hungary. **1054**. Beginning of schism between Latin and Greek Christian churches. **1075**. Struggle between the Empire and the Papacy; continues 50 years. **1081**. Alexius (I) Comnenus establishes Comnenian dynasty at Constantinople. **1095**. Beginning of the Crusades; continue intermittently for two centuries.
1100		**1159-1183**. Second struggle between Empire and Papacy; Frederick I (Barbarossa).
1200	**1215**. King John forced by English nobles to sign the Magna Charta. **1254**. Knights of the shire first attend an English parliament; the beginning of an elective part of the National Assembly. **1295**. Edward I of England calls the "Model Parliament"; burghers represented. **1296-1333**. Prolonged struggle between English and Scotch; Stirling (1297), Bannockburn (1314); Scotland's independence recognized (1328); Halidon Hill (1333).	**1222**. Andrew II signs the "Golden Bull," constitutional charter of Hungary. **1224**. Mongols invade Russia. Genghis Khan dies (1227) but invasion continues. **1250-1669**. Hanseatic League flourishes; capital Lübeck. **1265-1321**. Dante Alighieri. *Divina Commedia* completed, 1318. **1273**. Rudolph of Hapsburg chosen Emperor of Germany; Hapsburg ascendancy.
1300	**1302**. States-General called in France; first representative assembly. **1337-1453**. Hundred Years' War. **1340-1400**. Chaucer. **1348**. The Black Death. **1356**. Battle of Poitiers. Victories of English bowmen at Crécy (1346) and Poitiers against mailed warriors a great influence toward extinction of feudalism. **1358**. Peasants' Revolt (the Jacquerie) in France. **1381**. Peasants' Revolt (Wat Tyler and John Ball) in England. **1382**. Wycliffe's Bible.	**1301**. Arpád dynasty ends in Hungary; crown becomes elective. **1304-1374**. Petrarch. **1313-1375**. Boccaccio. **1309-1377**. Popes at Avignon; the "Babylonian Captivity." **1348**. The Black Death. **1355**. Turks capture Gallipoli and control Dardanelles; Adrianople (1361). **1365-1500**. Founding of universities in central Europe, Vienna (1365), Erfurt (1378), Heidelberg (1386), Leipzig (1409), Wittenberg (1502). **1378-1417**. Church schism in western Europe.
1400	**1400**. Completion of Froissart's *Chronicles*. **1419**. Voyages of discovery begin; Prince Henry (the Navigator) of Portugal. **1431**. Joan of Arc burned at the stake. **1452**. Impending fall of Constantinople drives Greek scholars to central and western Europe; vital impulse to the Renaissance movement (Revival of Learning). **1492**. Ferdinand and Isabella end Moorish dominion in Spain.	**1415**. Huss martyred. **1452-1519**. Leonardo da Vinci. **1483-1520**. Raphael. **1453**. Fall of Constantinople before the Turks; end of Eastern Roman Empire.

III. Early Modern Period: 1492–1814

A.D.	WESTERN EUROPE	CENTRAL, SOUTHERN, AND EASTERN EUROPE
1492	**1497**. Vasco da Gama sails around the Cape of Good Hope and (1498) reaches India.	**1494**. Medici in Florence, Italy, overthrown; Savonarola ruler; martyred 1498.
1500	**1500-1600**. Renaissance in French literature: Rabelais, Montaigne, etc. **1516**. More's *Utopia* is published. **1529**. Henry VIII of England deprives Cardinal Wolsey of his offices and honors. **1534**. England renounces the papacy; King head of the church. Order of the Jesuits founded by Loyola, a Spaniard. **1547-1616**. Cervantes. **1558**. Elizabeth succeeds to the throne of England; reigns until 1603. **1558-1589**. Early Elizabethan literature: Marlowe, Spenser, Sidney, etc. **1562-1593**. Huguenot wars in France. **1570-1600**. Height of Spanish power reached and decline begun (Armada 1588). **1579**. Union of Utrecht, beginning of the Dutch Republic. **1588**. English fleet destroys the Spanish Armada. **1589-1620**. Elizabethan literature at its height; Shakespeare, Jonson, etc. In France, Henry of Navarre succeeds as Henry IV to the throne, becomes (1593) Roman Catholic; religious toleration by Edict of Nantes (1598).	**1500-1571**. Benvenuto Cellini. **1513**. Machiavelli's *Prince*. **1517**. Martin Luther at Wittenberg; beginning Protestant Reformation. **1519**. Charles I of Spain becomes Holy Roman Emperor Charles V. **1520**. Luther excommunicated; (1521) at Diet of Worms is judged a heretic. **1526**. Turks conquer Hungary and (1529) reach walls of Vienna. **1529**. German reformers present protest (hence, Protestant) at the Diet of Spires. **1533-1584**. Ivan IV, "the Terrible," ruler of Russia; takes title of Czar in 1547. **1534**. Luther completes the translation of the Bible into German. **1543**. Copernicus demonstrates that the earth is a planet. **1545-1563**. Council of Trent. **1549-1570**. Religious Wars. **1566**. Hungary again ravaged by the Turks. **1571**. United fleet of the Papacy, Spain, and Venice defeat the Turks at Lepanto. **1582**. Gregorian calendar introduced. **1598**. Rurik dynasty ends in Russia; Boris Godunov gains throne.
1600	**1600**. English East India company formed. **1614**. Napier invents logarithms. **1616**. Harvey demonstrates the circulation of the blood. **1620-1680**. Puritan Age in English literature: Milton, Bunyan, Browne, etc. **1629**. Richelieu prime minister for Louis XIII of France; Huguenot wars end. **1636-1649**. In England, conflict between King (Charles I) and Parliament. **1640-1700**. Classic period of French drama: Corneille, Molière, Racine. **1649-1660**. England a "Commonwealth," under Oliver Cromwell as "Protector." **1660**. Restoration of the monarchy (Charles II) in England. **1660-1700**. Restoration period of English literature: Dryden, Congreve, etc. **1668**. Reflecting telescope made by Newton. *Principia* published (1687). **1685**. Revocation of the Edict of Nantes. **1688**. The "Glorious Revolution" in England; William of Orange becomes King.	**1613**. Mikhail Romanov becomes Czar of Russia; beginning of Romanov dynasty. **1618-1648**. Thirty Years' War. **1631-1632**. Gustavus Adolphus, of Sweden, against Tilly and Wallenstein. **1633**. Galileo persecuted for adherence to Copernican theory. **1640**. Frederick William, the Great Elector becomes ruler of Brandenburg. **1648**. Peace of Westphalia ends the Thirty Years' War. **1648-1689**. Poland begins long period of decline and social disintegration. **1672**. Turko-Polish war. **1678-1679**. Peace of Nijmegen, and its territorial adjustments. **1682-1725**. Reign of Peter the Great in Russia. **1683**. Turkish siege of Vienna raised; furthest Turk advance into Europe. **1686**. Austrians reconquer western Hungary from the Turks. **1697-1698**. Peter the Great of Russia studies civilization in western Europe. **1697-1718**. Reign of Charles XII of Sweden, a great military genius.
1700	**1700-1750**. Age of Voltaire: Saint-Simon, Montesquieu. **1704**. England captures Gibraltar. **1707**. England and Scotland unite under the name of Great Britain. **1721**. Smallpox inoculation introduced into England. **1730-1800**. Establishment and spread of Methodism in England. **1735**. Linnaeus publishes his *Systema Naturae*. **1750-1800**. Age of Johnson in English literature: Gibbon, Fielding, Sterne, etc. **1755**. Johnson's *Dictionary of the English Language* published. **1763**. Peace of Paris (Great Britain, France, and Spain); territorial adjustments. **1765**. Blackstone's *Commentaries* are published. **1767-1785**. Hargreaves's spinning jenny, Arkwright's spinning frame, Crompton's mule spinner, and Cartwright's power loom. Beginning of industrial revolution. **1769**. Watt invents the steam engine. **1776**. Adam Smith's *Wealth of Nations* is published. **1789**. Tennis Court oath marks beginning of the French Revolution. **1792**. French Republic is proclaimed, Louis XVI executed. **1793-1794**. Reign of Terror; Robespierre; ends with execution of Robespierre. **1795**. Directory established in France; Napoleon Bonaparte defends it against mob.	**1701**. Frederick III of Brandenburg King of Prussia, Hohenzollern dynasty. **1713**. Peace of Utrecht ends long War of the Spanish succession. **1718**. By Peace of Passarowitz Turks yield Hungary, Serbia, and Bosnia. **1721**. By Peace of Nystad, Sweden loses Baltic provinces; end of Swedish predominance. **1740-1786**. Frederick II, "the Great," of Prussia; Seven Years' War (1756–1763). **1748-1832**. Golden Age of German literature: Lessing, Goethe, Schiller, Kant, etc. **1762-1796**. Catherine II, "the Great," of Russia; extends boundaries. **1772**. 1st partition of Poland. **1774**. Peace of Küchük Kainarja: Turkey yields Black Sea region. **1793**. 2d partition of Poland. **1794**. Polish revolt under Kosciusko; quelled. **1795**. Final partition of Poland.
1800	**1800-1814**. Period of Napoleonic domination in western Europe: Emperor of the French (1804); defeats coalitions — Austerlitz (1805), Jena (1806), Eylau and Friedland (1807), Wagram (1809); campaign against Russia (1812), ends in retreat; defeated at Leipzig (1813); in defense of France (1814), abdicates, exiled to Elba. **1814**. Diplomats gather for the Congress of Vienna.	**1801-1825**. Alexander I, Czar of Russia; war against Napoleon (1812); at the Congress of Vienna (1814–1815). **1808-1812**. Revival of Prussia under Stein. Strategy of the British in Spain and Portugal, check Napoleon. **1812**. Treaty of Bucharest (Russia and Turkey); Prut river boundary.

N O P Q R S T U V W X Y Z

	Eastern Europe and the Near East	Asia	Africa	Australasia	Latin America
1814	1815. Congress of Vienna: Russia gets Finland & most of Poland, which are allowed autonomy.	1817-18. Final Maratha War.	1814. Brit. possession of Cape Colony confirmed.		1810-21. Span. Am. colonies win independence. 1815. United kdm. of Portugal Brazil decreed.
1820	1821-30. Greece wins independence from Turkey (Navarino, 1827). 1828. Russia gets Persian Armenia from Turkey.	1824. Netherlands cede all India establishments to Eng. 1826. Siam makes 1st western treaty (with Eng.). 1828. Suttee abolished in India.	1824. First negro colonists in Liberia.	1823. Act for govt. of N.S.W. 1826-36. Settlement begins in other Australian States.	1822. Brazilian independence. 1824. Slavery abol. in Cent. Am. 1824. Mexico adopts repub. constitution. 1825. Bolivia separates fr. Argentina. 1826-28. Uruguay gains independence from Brazil. 1829. Slavery abol. in Mexico.
1830	1830-31. Poland revolts; reduced to Rus. province. 1830. Serbia wins autonomy from Turkey. 1831-41. Egyptian-Turkish wars over Syria. 1835. Bulgar nationalistic revival begins. 1838. Eng. gets Aden & control of Persian Gulf.	1834. China forbids importation of opium. 1838-42. First Afghan War.	1830. French conquest of Algeria begins. 1834. Slavery abol. in So. Afr. 1836. Great Boer trek begins.	1833. First Eng. resident magistrate in N.Z. 1839. N.Z. Company organized, to colonize.	1832. Falkland Isls. settlement begins. 1836. Texas revolts from Mexico. 1837-38. Central Am. Repub. breaks up into independent states. 1838. Haitian independence recognized by France.
1840	1841. Dardanelles closed to warships in peace time. 1846-48. Poland revolts unsuccessfully against Russia.	1840. Opium War (Eng. & China). 1844. China makes 1st western treaty (with U.S.).	1847. Liberia declares independence.	1840. N.Z. a crown colony. 1840. Transportation of convicts to N.S.W. ceases. 1842. Copper disc. in So. Aust. 1842. Repres. govt. in N.S.W. 1845. First Maori War, N.Z.	1844. Dominican Repub. estab. 1844. Negro rising in Cuba. 1846-50. Isthmian canal concessions & treaties.
1850	1854-56. Crimean War (Balaklava, Sevastopol, Inkerman; origin of Red Cross).	1850-64. Taiping Rebellion. 1854 Japan-U.S. comm. treaty. 1856. United Provinces under Brit. rule. 1857-59. Indian (Sepoy) Mutiny. 1858. Brit. govt. takes over adminis. from Brit. E. India Co.	1852. Eng. acknowl. South African Repub. (Boer). 1858. Sources of Nile (Lake Victoria) disc.	1851. Gold discovered in N.S.W. 1852. N.Z. federal constitution. 1853. Transportation of convicts finally ceases. 1855. First Australian railway. 1856-59. Responsible govt. in N.Z. & Australia.	1854. Slavery abolished in Venezuela. 1855. Panama railroad completed.
1860	1861. Rumania formed from union of Moldavia & Walachia. 1861. Czar frees 22 million Rus. serfs. 1864. Eng. cedes Ionian Isls. to Greece. 1864. Russian zemstvos instituted.	1860. First Japanese mission to a western power (U.S.A.) 1862-64. Taiping rebels crushed (China). 1867-68. Revolution in Japan: shogunate abol. 1868. First Chinese mission (to U.S.).	1869. Suez Canal opened. 1869-71. Diamonds disc. in So. Africa.	1860-69. Second Maori War, N.Z. 1861. Australia begins restriction of Chinese immigration.	1863-67. French invasion of Mexico: Empire of Maximilian 1865. Negro rising in Jamaica. 1868-78. Cuban attempt for independence.
1870	1870. Turkey permits a Bulgarian exarchate. 1876. Bulgarian revolt crushed. 1877-78. Russo-Turkish War: Rumanian & Serbian independence; Bulgaria an autonomous state; Austrian adminis. of Bosnia & Herzegovina; beginning of Armenian question (massacres 1890–1909).	1874. Brit. protectorate over Malay States begins. 1875. End of feudalism in Japan; Council of *genro* (elder statesmen) established.	1875. Eng. buys control of Suez Canal. 1876. Stanley disc. sources of Congo. 1876-85. Congo question: Congo Free State established. 1879. Zulu War (Cetewayo defeated).		1871. Religious toleration in Guatemala. 1871-88. Emancipation in Brazil.
1880	1879-81. Nihilist activities in Russia. 1885. Eastern Rumelia joins Bulgaria; Serbo-Bulgarian war (no result).	1880. First Japanese legal code. 1882. U.S. forbids Chinese immigration. 1882-86. Sino-French war: Fr. gets Annam & Tonkin.	1882. Eng. seizes Egypt. 1883-84. Sudan campaign against the Mahdi. 1884. German colonization in Africa begins. 1886. Gold disc. in Rand: Uitlander controversy.	1884-88. Brit. New Guinea acquired. 1885. Gold disc. in W. Australia. 1888. More drastic anti-Chinese legislation in Australia.	1880-86. Slavery abol. in Cuba. 1881. De Lesseps' Co. starts work on Panama Canal. 1889. First Pan-American Congress (Washington). 1889. Republican United States of Brazil proclaimed.
1890	1896. Olympic games revived, at Athens. 1896-97. Turko-Greek War. 1898. Crete gains autonomy. 1899. Finland loses autonomy.	1894-95. Sino-Jap. war: Japan gets Formosa. 1896. Russia gets Manchurian railway rights. 1897. Germany seizes Kiaochow. 1897-98. "Opendoor" policy in China. 1898. Spanish-American War.	1890. Brussels convention to suppress African slave trade. 1895. Jameson Raid.	1890. Great strike & comm. panic in Aust. 1893-1902. Woman suffrage in N.Z. & Australia. 1894-08. N.Z. labor legislation.	1895. U.S. intervenes in Venezuela-Brit. Guiana boundary dispute. 1898. Spanish-American War: Cuban independence; U.S. gets Puerto Rico.
1900	1902. Nationalization of Jews in Rumania. 1905. Czar extends powers of Russian Duma. 1905-14. Internal unrest & anti-czaristic movements in Russia. 1908. Austria annexes Bosnia & Herzegovina. 1908-9. Bulgaria wins independence. 1908. Rise of the Young Turk party.	1900. Boxer rising in China. 1902. Anglo-Japanese defensive alliance. 1904-05. Russo-Japanese War. 1907. Japan assumes control of Korea.	1899-1901. South African (Boer) War: Boers yield independence. 1902. Aswan Dam opened. 1904-12. Moroccan question between Fr. & Spain &, esp., Fr. & Ger. 1908. Belgium annexes Congo Free State.	1900. Commonwealth of Australia proclaimed. 1901-08. Aust. labor legislation. 1906. Papua (Brit. New Guinea) becomes territory of Australia.	1901-02. U.S. gets control of Isthmian canal concession. 1903. Panama gains independence from Colombia. 1907. Goethals begins work on Panama Canal.
1910	1910. Montenegro becomes a kingdom. 1910. Wahabi revival in Arabia under Abdul ibn-Saud. 1912. First Balkan War: Albanian independence. 1913. Second Balkan War: Greece gets Crete.	1910. First Chinese National Assembly. 1911-12. Chinese Republic established. 1913. First trial by jury in China.	1010. Union of South Africa proclaimed.	1912. Federal transcontinental railway begun in Australia.	1910-11. Mexican revolt under Madero. 1914. Panama Canal opened.

	GENERAL AND DIPLOMATIC	WESTERN AREA	EASTERN AREA	ITALIAN, BALKAN, ETC.	NAVAL AND AIR OPERATIONS
1914	*June 28.* Archduke Francis Ferdinand, of Austria, assassinated. Austria declares war (*July 28*) on Serbia. *Aug. 1.* Ger. decl. war on Russia. *Aug. 3.* Ger. decl. war on France. *Aug. 4.* Gr. Brit. decl. war on Ger. *Aug. 6.* Austria decl. war on Russia. *Aug. 12.* Gr. Brit. and France decl. war on Austria.	*Aug. 3–Sept. 6.* Germans strike for Paris, invading Belgium (despite the guarantee of Belgian neutrality); British and French forced back. *Sept. 6–10.* 1st battle of the Marne; Germans retreat. *Sept. 28–Oct. 19.* Both armies extend their lines to the sea. *Oct. 19–Nov. 21.* 1st battle of Ypres.	*Aug.* 20. Von Hindenburg put in command; defeats Russian invaders at Tannenberg (Aug. 26–29) and Masurian Lakes (Sept. 6–12). *Sept. 10.* Austrian invasion of Poland checked at Krásnik. *Sept. 29–Oct. 4.* Battle of Augustów; Russians advance. *Nov. 14.* Germans attack in Poland.	*Aug. 16–25.* Battle of the Jadar. Serbians force Austrian retirement. *Aug., Sept., & Oct.* German colonies attacked in various parts of the world. *Nov. 1.* Austrians again invade Serbia; defeated (Dec. 3–6). *Dec. 29.* Russians defeat Turks in Armenia.	*Aug. 5–Dec. 31.* Allies gain command of the sea. Notable incidents. *Aug. 28.* Battle of the Bight of Helgoland. *Sept. 10–Nov. 9.* German raider *Emden* sinks 17 vessels; is finally sunk. *Dec. 8.* Battle of Falkland Islands; the German Pacific Fleet is destroyed.
1915	*April 26.* Secret treaty of London, Italy and the Allies. *May 4.* Italy denounces the Triple Alliance, and (May 23) declares war on Austria. *Oct. 14.* Bulgaria declares war on Serbia.	*Jan.–Dec.* War of positions; allies show initiative in attacks (Soissons, Saint-Mihiel, Neuve-Chapelle, Artois, Champagne), but fail to break through intrenched lines.	*May 1–Sept. 30.* Great successful German drive against the Russian line.	*Feb. 19.* Allied attack at Gallipoli begins. *April 24–28.* Troops landed at Gallipoli. *May 25–Oct. 21.* Italians push attacks on the Isonzo river and the Carso plateau; fail. *Aug. 6–10.* Allies attack at Gallipoli; fail, and withdraw (Dec. 8). *Oct. 6–Nov. 18.* Austrians and Bulgarians defeat Serbians. *Dec. 7.* British forced back to Kut-el-Amara, in Mesopotamian campaign.	*Jan. 24.* Battle of the Dogger Bank; British victory. *March* 20. Zeppelin raid on Paris. *May 31.* Zeppelin raid on London. *Aug. 19–20.* German fleet defeated by Russians in Gulf of Riga.
1916	*Aug. 17.* Rumania makes secret treaty with Allies. *Aug. 27.* Rumania declares war on Austria. *Aug. 28.* Italy declares war on Germany.	*Feb. 21–Aug. 29.* Germans attack Verdun; fail. *June 24–Nov. 18.* Allies attack on the Somme; German lines bent; Germans prepare Hindenburg line.	*June 3–Aug.* 10. Brusilov leads Russians in a drive through Galicia; take Czernowitz (June 17), Kolomea (June 28), Stanislau (Aug. 10).	*April 29.* British surrender at Kut-el-Amara. *May 14–June 27.* Austrian attack in the Trentino checked. *Sept. 2–Dec. 31.* Mackensen and Falkenhayn defeat Rumanians. *Dec. 13.* New offensive in Mesopotamia started by the British.	*Jan.–Dec.* 1065 vessels, of 2,000,000 tons, lost, chiefly by submarine attack. *May 31.* Battle of Jutland, only great squadron naval battle of the War; Germans are forced to retire and their naval strength is useless.
1917	*March.* Russian Revolution. (Mar. 15) Czar abdicates. *April 6.* United States declares war on Germany. *July 20–Nov. 8.* Kerenski government in Russia. *Nov. 8.* Bolsheviks overthrow Kerenski government; Lenin becomes premier. *Dec. 7.* United States declares war on Austria-Hungary.	*March 15.* Germans retire to Hindenburg line. *Mar. 15–Dec. 31.* Germans successfully resist attacks (Arras, Aisne) but fail to gain at Ypres.	*July 1.* Kornilov leads Russian offensive in Galicia, but Bolshevik propaganda has undermined the morale and discipline of the troops. Russians fall back. *Dec. 17.* Armistice between Russia and the Central Powers. Peace of Brest Litovsk.	*Feb. 24.* British Mesopotamian force takes Kut-el-Amara, and (Mar. 7) Bagdad. *May 14–June 1.* Italians renew offensive; fail. *Oct. 24–Nov. 15.* German-Austrian attack drives Italians to the Piave river. *Dec. 9.* Allenby enters Jerusalem.	*Jan. 31.* Central Powers resumption of unrestricted submarine warfare, leads to entry of the United States into the War. *April.* Submarine sinkings decrease; submarines are destroyed and German failure becomes apparent.

	GENERAL AND DIPLOMATIC	WESTERN AREA	ITALIAN, BALKAN, AND OTHER AREAS	NAVAL AND AIR OPERATIONS
1918	*Jan. 8.* Wilson & the Fourteen Points. *May. 6.* Treaty of Bucharest between Rumania and the Central Powers. *Sept. 15.* Austria-Hungary proposes peace conversations. *Sept. 30.* Hindenburg and Ludendorff ask opening of peace negotiations. *Nov. 3.* Austria, armistice with Italy. *Nov. 9.* Revolt in Germany; Kaiser flees. *Nov. 11.* Armistice signed.	*March 21–April 5.* German offensive. *March 26.* General Foch appointed to co-ordinate the allied forces. *April–July.* Five German offensives; all fail. *July 18–Nov. 11.* Great Allied offensive which wins the war; (Sept. 26–Nov. 11), the Hindenburg line is pierced and a general assault (Nov. 4) precipitates a German retreat. *Nov. 11.* Armistice signed. *Nov. 17.* Allies advance to Rhine.	*June 15.* Austrians attempt an offensive; fails utterly. *Sept. 15–16.* Bulgarian collapse. *Sept. 19–23.* British attack Turks north of Jaffa; rout the Turkish army; enter Damascus (Oct. 1), Beirut (Oct. 8), Aleppo (Oct. 25), Mosul (Nov. 3). *Sept. 30.* Armistice with Bulgaria. *Oct. 24–Nov. 3.* Great Italian offensive breaks the Austrian lines; armistice asked. *Nov. 1.* Armistice with Turkey. *Nov. 4.* Armistice with Austria.	*June–October.* Allies establish a mine barrage across the North Sea. Germans make 6 airplane and 4 Zeppelin raids on Great Britain. Allies make 9 airplane raids on German cities in retaliation. *Nov. 21.* German high-seas fleet is surrendered.

1919	The Peace Conference and the Treaties. Conference Assembles in Paris (Jan. 18); the "Big Four," Wilson (U. S.), Lloyd George (Gr. Brit.), Clemenceau (Fr.), Orlando (It.), make all important decisions; at Wilson's insistence, provision for a League of Nations is an essential part of the work of the Conference. The Treaty of Versailles, between the Allied Powers and Germany, is signed June 28, 1919, ratified by the German National Assembly July 9, in effect Jan. 10, 1920.	**1920.** The Treaty of Versailles meets strong opposition in the United States, and fails of ratification (Mar. 19, 1920) by the Senate. In Germany, the new German Republic, Ebert president, faces political unrest. Russian Bolshevik government continues the war on all fronts against the anti-Bolshevik armies; by the end of 1920 Bolsheviks are successful on all fronts. In Turkey, Mustafa Kemal, establishing a Nationalist government at Konya, dominated Asia Minor; the Greek army began an offensive near Smyrna.

VI. The Postwar Period: 1921–1933

	AMERICA	EUROPE AND THE NEAR EAST	INDIA AND THE FAR EAST
1921 – 1923	In U. S., Republican administration (Harding) opposed to U. S. entrance to League of Nations. Washington Conference; 5-5-3 ratio for naval strength approved; Four-Power Treaty. Harding dies (Aug. 2, 1923); Coolidge president. Balfour note (1922) proposes cancellation of interallied debts or, if that is not acceptable, payment to England of only enough to meet England's payments to U. S.; later (1924), Churchill reaffirms the principle. American troops withdrawn from the Rhine (1923). Russia's plea to the U. S. for recognition is refused.	Famine in Russia (1921); leads to New Economic Policy. Defensive Baltic League formed (1922). Alliance between France and the Little Entente. In Turko-Greek war, Turks drive Greeks to the sea; capture Smyrna; Turks win great concessions in Treaty of Lausanne (July 24, 1923.) France occupies the Ruhr; Germany inflates currency. Mussolini leads Fascist march on Rome (1922); premier; beginning of Fascist dictatorship in Italy. Hitler initiates (Nov. 9, 1923) an unsuccessful rising.	In India, Gandhi's plan for nonviolent revolt against British rule is adopted; beginning of Gandhi's long struggle against British; Gandhi imprisoned; British adopt strong measures to keep the peace. In China, civil war and confusion through this period; Sun Yat-sen leader of the Cantonese forces. British agree to return Weihaiwei to China. Japanese retire from Vladivostok, turning the city over to the Russians; Japanese also withdraw from Shantung.
1924 – 1927	In U. S., Coolidge and the Republicans win the 1924 election. U. S. Congress votes (1926) in favor of U. S. adherence to the Permanent Court of International Justice. Various War debt-funding contracts with the U. S. negotiated and ratified. Mexican government receives strong protest from U. S. against new Mexican land law and petroleum bills.	Lenin dies (Jan. 21, 1924). In Italy, Fascists suppress opposition. Hindenburg president of Germany (Apr. 26, 1925). Dawes Plan for reparations payments. French evacuate the Ruhr (July 31, 1925). The Locarno treaties are signed (1925). In Turkey, Mustafa Kemal given dictatorial power. In England, first Labor ministry (1924); MacDonald. Allied control of Germany's armaments ceases.	In India, Gandhi is released from prison, and again takes up leadership of opposition to British rule. In China, continued civil war (1924–1927); a new Nationalist government is finally established at Nanking (Sept. 19, 1927), and is recognized by U. S., Great Britain, Japan; its position insecure; frequent revolts. In Japan, Hirohito becomes Emperor (Dec. 25, 1926); acute banking and financial crisis (1927).
1928 – 1930	U. S. submits an Antiwar Pact to various nations; accepted. Pan-American Congress meets in Washington; States agree to compulsory arbitration. Hoover inaugurated (Mar. 4, 1929); spectacular crash in N. Y. stock exchange prices (Oct. 24–30, 1929); signalizes the beginning of severe depression in U. S. U. S. Senate ratifies the London Naval Treaty.	In Russia, Stalin faction triumphs; program for collectivism in grain-producing areas is announced. Italy concludes a Concordat with the Papacy; papal state recognized with Pope as sovereign. Young Plan for reparations payments. In France, Poincaré government saves the franc. In Germany, Nazis show great strength. French program for fortification of frontiers adopted. Serious Arab-Jew riots in Palestine.	In China, Chiang Kai-shek president; civil wars continue, also famine and floods; Russo-Chinese crisis caused by Chinese arrest at Harbin (July 10, 1929) of Russian employees on the Chinese-Eastern Railway; Russian troops invade Manchuria and force Chinese to agree to negotiate a settlement. In India, sporadic rioting; Viceroy promises dominion status but Gandhi demands complete independence; Gandhi again arrested; Round Table Conference on Indian affairs, held in London, supports promise of dominion status.
1931 – 1933	Hoover, at German financial crisis, proposes a moratorium on intergovernmental debts and payments; U. S. attitude toward Japanese Manchurian policy defined. Franklin D. Roosevelt takes office (1933) at a moment of crisis; decrees bank holiday; calls special session of Congress; Congress gives president extraordinary authority and control of credits to meet the financial and economic crisis; administrative boards created (N.R.A., A.A.A., etc.); U. S. goes off gold standard; recognizes Russia. Bolivia and Paraguay begin (1931) long bitter struggle for control of the El Chaco region (oil). Colombia and Peru dispute over Leticia (1933) settled by intervention of League of Nations.	Financial crisis in Germany; Hoover moratorium; Hitler appointed Chancellor (Jan. 30, 1933); adopts aggressive policy; measures include encouragement to Austrian Nazis, persecution of Jews, declaration of intention to rearm Germany; Germany withdraws (Oct. 19, 1933) from the League of Nations. Lytton report on the Sino-Japanese issue blames the Japanese; League adopts report (Feb. 24, 1933), and Japan withdraws from the League. In Russia, the 1st Five Year plan ends, and 2d is immediately announced; collectivism is progressing. By the Statute of Westminster (1931), Great Britain recognizes the independence and equality of the dominions	In India, Gandhi, again released, at the Round Table Conference demands equality with Great Britain; urges passive resistance and boycott; is several times arrested and released, (1932-33); in Aug. 1933, declares a truce with the British for a year. Japanese seize Mukden (Sept., 1931); overrun Manchuria; set up the puppet state of Manchukuo; later conquer Jehol; invade northern China; also (1932) attack Shanghai. In China, the Nationalist government is weakened by the Japanese attacks and the loss of Manchuria and Jehol; it forces renewed civil war, especially serious in the province of Fukien.

INDEX

TO THE

REFERENCE HISTORY OF THE WORLD

THE Table of Contents and the Preface, preceding the History, should be read in order quickly to comprehend the plan and scope of the History and to make full use of it. The aim in this INDEX has heen to cover all important references to periods, events, places, persons, and the like, each under its specific name. Events are given under the names of the places where they occurred. Thus, *battle of Actium* is under ACTIUM, *Congress of Berlin*, under BERLIN, *Treaty of Versailles*, under VERSAILLES, etc. Besides this specific indexing, much of the information is otherwise indexed under topics, as *Aviation, Prohibition, Socialism, Woman Suffrage*, so that the whole forms a topical analysis as well as index.

In the case of all countries of any importance the index shows, under the name of the country (as, for instance, *France*), the page on which begins the historical outline of the country, its organization, including government, religion, industry and labor, education, defense, etc., and its chronology; and in addition are listed all other places where the country, or events or persons important in its history, are treated in the histories of *other* countries or periods. These "other references" are especially useful in tracing the earlier history of a state through the medieval and early modern periods down to the time when its individual chronology hegins, after which time the events contained in this chronology do not, of course, need to he indexed in detail under that country. All of the items under a country's name or under a topic are arranged hoth chronologically and alphabetically, as in the History itself.

Besides the direct references from one country or section of the History to another, cross references have heen freely used, as in the History, to link the treatments together or suggest phases of a question that may not at first he evident. It should be rememhered in this connection that many names of the important events, personages, and places mentioned in the History will also he found in the main vocabulary of the Dictionary, the Biographical section, or the Gazetteer, to which further reference may he made.

EXPLANATIONS: Reference numbers, as 16a, 16f, indicate page and column location of the item in the History. The numeral shows the page; the letter shows the column and also whether the upper or lower half of the column is meant, "a" indicating the *upper* half of the *first* column, "b" the *lower* half of the first column, "c" the upper half of the second column, "d" the lower half, "e" the upper half of the third column, and "f" the lower half. This simple method of referring directly to the different parts of a page is shown hy the accompanying diagram. Where several references to a name or event are to the same half column in the History, semicolons separate the distinct items, and the page and column reference is given after the last item only.

a	*c*	*e*
b	*d*	*f*

Abbreviations have heen freely used in the index, care heing taken to use only such as are well established or obvious. Such ahhreviations as Fr., Ger., etc., are to he read "France," "French," "Germany," "Germans," "German," as the sense or the construction demands. The following special abbreviations have heen used:

assas(s). assassinated
bat. battle
bet. between
cap. capital, captures, -d
capt. captures, -d
conq. conquers, -ed, -or
d. dies, died
depend. dependency
disc. discovers
dyn. dynasty
emp. empire, emperor, empress
exhib. exhibition
exped. expedition
fnd. founds, -ed
fr. from
insurr. insurrection
kdm. kingdom
Rum. Rumania, -nian
set. settled, -ment
sur., surr. surrenders, -ed
Sw. Sweden, Swedish
Switz. Switzerland
trans. transferred
Venez. Venezuela

A

Abakan, 189e.
Abbas, uncle of Mohammed, 12b.
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It is an immense library and a great university in itself. Harvard and Yale, and Oxford and Cambridge will all sit at its feet. Even the great Oxford English Dictionary, which in some ways is the imcomparable English Dictionary, will yet acknowledge its superiority in some points, especially in ready usability. All other books lie embedded in it. Every one of the words in the English Bible is in it and so are all the English words in the Encyclopedia Britannica. All possible English books are already here: all that is wanting is a little selection and rearrangement and ligature. You can be a greater poet than Shakespeare if you can simply pick out the poems that are lying dismembered and scattered through these pages. You could write the history of the next century if you could dissect it out of this book. It is as full of prophecy as of history, and both the past and the future are embalmed in this magic volume. The minister can here find sermons surpassing those of Beecher and Brooks and Spurgeon if he has the imaginative insight to see them in this vast homiletical treasury. The lawyer can here find briefs that will win his cases, and the statesman can find speeches that in eloquence will put him on the same pedestal with Lincoln and Webster. Marvelous are its interest and usefulness and possibilities, and it offers its service just as freely to the artisan as to the artist, to the humblest mind as to the greatest scholar and genius. All we need supply is that little matter of selection and arrangement.

And so those who are engaged in any literary calling should have the dictionary habit and hug this book to their hearts and let it soak into their souls. Great is the mystery of words. Speech is man's most wonderful accomplishment and greatest power so that his tongue is mightier than his pen and the pen than the sword. This book adds greatly to the sweep and power of the tongue and thereby widens our world and enlarges our dominion over it.

—*The Presbyterian Banner*
Issue of Jan. 31, 1935.

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THE NEW WEBSTER'S DICTIONARY.

"An Epitome of Human Knowledge Up to Date."

By PROFESSOR ERNEST WEEKLEY.

T is a curious fact that, during the first half of the nineteenth century, our two chief authorities for our own language were Ameri-ns. In 1795 Lindley Murray, a Pennsyl-an, settled in England, published an English .nmar which remained a standard work up mes which some of us can remember. In Noah Webster put forth his American ctionary of the English Language, which, spite its rather aggressive title, superseded hnson and, in successive editions, has held field up to the present day as the most luable large-scale English Dictionary in exist-ce, excepting, of course, the gigantic Oxford tionary.

gin of *American spelling.*

This American raid on the territory of the glish language was no doubt due to the new nal consciousness which came into being the foundation of the young Republic. fact, Webster, in his "Dissertations on the ıgush Language," dedicated (in 1789) to "His cellency, Benjamin Franklin, Esq.," had laimed that a future separation of the nerican tongue from the English was "neces-and unavoidable." He failed to make owance for ever-increasing facilities of com-ınication and the possession of a common erature, factors which have kept the literary ıguage almost homogeneous up to the present y, great as is the difference between the two lloquial idioms. It is chiefly to Webster, also, at is due the divergence between English and nerican spelling (*labor*, *center*, *defense*, *etc.*), gh he soon receded from the extreme atti-le of his famous American Spelling Book 93), of which thirty million copies had been ld by 1848.

revolutions, stars.

he latest form of this famous Dictionary* icyclopædic in conception, amazing in com-eness, colossal in dimensions and weight. * * * It contains 550,000 entries, which rather more than the great Oxford Dictionary, ıd 3,350 pages. It is one more of the triumphs typography of the Riverside Press, and the olume, in spite of its size, opens and remains pen comfortably. It is not only a dictionary, ut an epitome of human knowledge up to date. ew people need, either for spelling or definition, to look up the word *oil* in a dictionary, but anyone who does so use the new Webster will find a tabulated list of about three hundred "oils," along with their vegetable or animal origin, specific gravity, nature, and chief uses. The more historically minded inquirer, with a special interest in revolutions, has only to turn to page 2135 to find a complete list of such political upheavals, starting from the American Revolution, with dates, causes, principal leaders and events, results. The dabbler in astronomy is provided, on page 2458, with a complete list of the fixed stars, along with full figures of their magnitudes, ascensions, and declinations. In fact, it is difficult to see what other work of reference can be needed in a house possessing its Webster up to date, which concludes with a Pronouncing Gazetteer or Geographical Dictionary of the World.

A dictionary has to be judged by (1) completeness of vocabulary, (2) clarity and fullness of definition, (3) etymology. As far as the two first requirements are concerned, no modern dictionary can compare with that now before us. Look up the word *relativity* and you will find what amounts to a short chapter on Einstein's theory. All the latest political catchwords—*Fascist*, *Nazi*, and even *Zimmerwaldian*—are there, with a succinct account of their meaning and origin, not to mention the variously tinted shirts which have become so picturesque a feature of contemporary political imbecility. The new vocabulary of aviation, of the cinema, of wireless telegraphy, etc., is treated with a fullness which only the collaboration of numerous experts has made possible. Among the prolegomena to the Dictionary will be found the names and portraits of nearly two hundred of these assistant editors, a feature which would have amazed grim old Noah Webster, whose fine coloured portrait serves as frontispiece.

Etymology of "avalanche."

The weak point of our older dictionaries, and the part of most interest to this reviewer, is etymology. When Noah Webster put forth his one-man work little was known of etymology, and the absurdities of Johnson and Richardson were confidently repeated from generation to generation. It was not till the inception of the great Oxford Dictionary that the results of modern research were sifted and put in order. But even the Oxford Dictionary, the earlier part of which is now half a century old, is often out of date. The new Webster marks, from this point of view, a great advance on anything that has been done so far. An example is the word *avalanche*. This was formerly associated with Old French *avaler*, to descend. This etymology is still in the Oxford Dictionary, nor is it corrected in the Supplement. It is even in Professor Wyld's Universal Dictionary of 1932. The new Webster gives the facts which have long been known to Romance etymologists, viz., that *avalanche* is perverted by folk-etymology from the older *lavanche or lavange*, an Alpine word which goes back to Latin *Labi*, to glide. The old explanation of *pagan*, popularized by Trench, was that the Latin *pagani*, rustics, remained heathen longer than the townsmen. Wyld simply gives *paganus*, villager, countryman, but Webster, following the "addenda and corrigenda" to the Oxford Dictionary, shows that *paganus* was Roman military slang for what Private Mulvaney calls a "lousy civilian," hence, in the slang of the early Church, not a true soldier (of Christ).

American slang.

It is impossible within the limits of a review to give any complete account of this remarkable work. A few general criticisms occur to one. To begin with, the Guide to Pronunciation (pp. xxii-lxxviii) is bewildering in its completeness; it is much too full. The illustrations, also, are too numerous; we are grateful for the brontosaurus, but we really do *not* need pictures of the lion, the swan, and the hippopotamus. The Dictionary, which includes the whole of the American and English vocabularies, supply cautions as to special English uses, *e.g.*, we are told that *bloody*, comparatively mild in the States, is "in English a gross vulgarism" but there is nothing to indicate that many of the words dealt with are pure Americanism. Possibly the editors have felt that American is conquering English so rapidly that the point is of no importance; one already sees *Cafeteria* over cheap restaurants, and a few more years may even naturalize the obscene term *mortician* for an undertaker. Not that we are ungrateful to America for its expressive tabloids, such as *fan* and *stunt*, *dope-fiend* and *sob-stuff*. Most of all, perhaps, for *blurb*, which the late Poet Laureate described as "indispensable." Mr. Gelett Burgess, by coining this expressive word becomes the linguistic rival of the late Arthur Roberts, to whom we owe the equally indispensable *spoof*.

* Webster's New International Dictionary of the English anguage," 2nd edition.

Probably a few of us have salvaged the grandest reading thrill of all in perusing the new Merriam-Webster creation of WEBSTER'S NEW INTERNATIONAL DICTIONARY, SECOND EDITION. Here for the seeker are many evenings of word orgies, the tragedy, sublimity, dignity, and beauty of the language preserved by men who loved it. Along with his Bible, every man should study the dictionary a while each day.--O. O. McINTYRE.

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